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THE
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Calcutta University Commission, 1917-19

REPORT

Volume XI

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Evidence and Documents

CLASSIFIED REPLIES TO THE COMMISSIONERS' QUESTIONS 13—16

13. Subjects of study omitted in curricula.
14. Government and the University.
15. University examinations and public service.
16. Research in the University.

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Calcutta University Commission

WRITTEN ANSWERS

TO

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Irwin, The Hon'ble Mr. H. R. A., Manager, Singell Tea Co., Ltd., and Additional Member, Bengal Legislative Council, Kurseong.	13	29
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Iyer, The Hon'ble Mr. Justice T. V. Seshagiri, B.A., B.L., Puisne Judge, High Court, and Fellow, Madras University, Madras.	14 15 16	79 141 219
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Lahiry, Ranojit Chandra, M.A., B.L., Pleader, District Court, and Member, Edward College Council, Pabna.	13 14 15 16	30 81 152 220
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Mukerjee, Bijoy Gopal, M.A., Professor of English, Bethune College, and Lecturer in English, Calcutta University, Calcutta.	13 15 16	35 165 225
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Sen, Surendranath, M.A., Professor of Mathematics.		
Sen Gupta, Sureschandra, M.A., Professor of English.		
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Sastri, Rai Rajendra Chandra, Bahadur, M.A., Bengali Translator to the Government of Bengal, and Lecturer in Sanskrit, Calcutta University, Calcutta.	14	90
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Warren, Rev. A., B.A., Professor of English.		
Watt, Rev. Dr. J., M.A., D.D., F.C.S., Principal and Professor of Chemistry, and Fellow, Calcutta University.		
Alexander, W., M.A., Head Master, Scottish Churches Collegiate School.		
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Chakravarti, J. N., M.A., Lecturer in English.		
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Das Gupta, J. C., M.A., Lecturer in Economics.		
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Mukerji, N. N., M.A., Lecturer in History.		
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Victoria, Sister Mary, C.J., S.B., Principal, Diocesan College for Girls, Calcutta.	13	40
Vidyabhusan, Rajendranath, Lecturer in Sanskrit Literature and Rhetoric, Sanskrit College, and Lecturer in Sanskrit, Calcutta University, Calcutta.	13 14 15 16	40 97 185 240
Vidyabhusana, Mahamahopadhyaya Dr. Satis Chandra, M.A., Ph.D., M.R.A.S., F.A.S.B., Principal, Sanskrit College, and Fellow, Calcutta University, Calcutta.	13 14 15 16	40 97 185 240
Vredenburg, E., M.A., B. ès-L., B. ès-Sc., A.R.S.M., A.E.C.S., F.G.S., Superintendent, Geological Survey of India, and Lecturer in Geology, Calcutta University, Calcutta.	13 15 16	50 185 240
Waheed, Shams-ul-Ulama Abu Nasr, M.A., Principal, Dacca Madrassah, and Fellow, Calcutta University, Dacca.	14 15 16	97 186 240
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QUESTION 13.

Are there any branches of science or learning not now represented in the curricula of, or not actually taught in, secondary schools in Bengal, and the University of Calcutta or its colleges, which, in your judgment, it is of importance to introduce?

ANSWERS.

ABDURRAHMAN, Dr.

The curriculum as interpreted from the point of view of the modern science of education is no sacred inheritance. It must present to the student in an ideal form not only the best elements of the culture of the past but also of the present life, social activities, ethical movements, and political aspirations. It should introduce the student to individual and national life as it is and as it should be. The movement for the enrichment of the curriculum has been a characteristic expression of university reform in the last and the present centuries. Enrichment does not mean only addition of new subjects, but also employment of better, and more rational, methods of teaching and research.

In a transitional time like this the problem has its special importance. Assuming that studies should represent the selections which are declared most important by the experience of the past life and civilisation of the people, and which are needed from the practical standpoint I look at the subject from two different points of view.

Looking from a sociological, economic and scientific angle of vision an unprecedented attention is demanded by *useful* scientific knowledge. The welfare of the individual, as living in a modern politico-scientific-economic environment should be the aim in view. Conforming to this need I propose that a chair of commercial and industrial chemistry, with special reference to Indian products, should be established immediately. It is such education alone that can ultimately help to transform India from a raw-material producing country to a *manufacturing* country, and it is high time that the authorities of the University, without further delay, addressed themselves to this most pressing need of the people. The present war has shown how great are the chances of opening up new avenues of trade with Central Asia and other Asiatic countries in Indian products.

A mining course should, likewise, be included in the curriculum, with a utilitarian aim. India is yet a country which abounds in unearthed treasures of coal, metals, and precious stones. Calcutta, with the Bengal coal mines on one side and the Central Provinces coal mines on the other and a perfect traffic railway system between them, is better fitted to take a lead in the matter than all other Indian universities.

The University of Calcutta can, again, take a page out of the book of the continental universities by founding a polytechnic, with a well-equipped technical and industrial institute, a college of commerce, and a college of agriculture.

Turning to humanistic education I will repeat what I have said elsewhere that the study of Indian linguistics and philology can no longer be neglected. The Calcutta University, which already gives instruction in various Indian languages, is the only institution in India which has already advanced a long way on the road to such a scheme.

The Patna University has taken the lead in the matter of encouraging the study of Indian archæology. It would be well if the Calcutta University also did the same, because with the Calcutta Museum and its large and remarkable collection it possesses special facilities to undertake such education. If Aurel Stein and Sven Hedin can explore and find invaluable archæological treasures in Central Asia and Trans-Himalaya it is not too much to hope that Indians, if properly trained, can also make equally important, if not greater, discoveries.

AHMED, TASLIMUDDIN, Khan Bahadur—AHMED, Maulvi TASSADDUQ—AHSANULLAH, Khan Bahadur Maulvi.

AHMED, TASLIMUDDIN, Khan Bahadur.

The study of agriculture and religion should be introduced. Religious training is as necessary as secular learning. Agriculture is now in the hands of ignorant persons, which means loss to the people and loss to the State. Agriculture may give profitable employment to many educated persons.

AHMED, Maulvi TASSADDUQ.

In the curriculum of secondary schools I would include popular science. In order to give a scientific bent to the mind it is highly desirable that some amount of elementary teaching of popular and utilitarian science should be provided for all boys who pass out of secondary schools.

History and geography should both be made compulsory up to the present matriculation stage. The history of England and of the world, with special reference to Islamic history, should be taught in outline, along with the study of the history of India in detail.

Urdu should be regarded as a second language on the same basis as Persian, Arabic, or Sanskrit for those boys whose vernacular is not Urdu. This measure would affect the Muhammadans of Bengal very beneficially in many ways. There is a general consensus of opinion that Urdu has already attained such a degree of development that it will effectively serve as a medium of linguistic training like other classical languages.

As I have said elsewhere specialisation in the school will be provided for during the two years after the present matriculation stage, *i.e.*, the existing intermediate stage, which I would bring within the secondary school.

In the University of Calcutta the history of Islam has been sadly neglected, except in the M.A. course. In a province where more than half the population belongs to the Muhammadan community it is only just and proper that the students, Hindus and Muhammadans alike, should have a knowledge of the history of Islam. It is all the more necessary for the Muhammadans, whose ignorance of the history of the spread and development of their own religion is much to be regretted. To my mind, a study of this subject would benefit the Hindus also, inasmuch as they will know more about their Muhammadan brethren, and thus help in bringing about a real *rapprochement* between the two communities. It can hardly be denied that Islam, with its past glory and civilisation, has contributed considerably to the advancement of the world.

AHSANULLAH, Khan Bahadur Maulvi.

The following subjects should be included in the general question:—

Compulsory.	*Optional.*
(*a*) English.	(*a*) A second language (Sanskrit, Arabic, Persian, or Urdu).
(*b*) Vernacular.	
(*c*) Mathematics.	
(*d*) History.	(*b*) Science (elementary physics or mechanics).
(*e*) Geography.	

The school years should be designed to carry general education to a point which will enable the boys to embark on a higher university course. The specialisation should not be carried too far, save after the matriculation. Each boy should be expected to write correct English. He should be fairly well grounded in mathematics and gain a fair acquaintance with the facts and events connected with the land he lives in. He ought also to know the machinery of the government of his country and its relation to the British Parliament.

AHSANULLAH, Khan Bahadur Maulvi—*contd.*—ALI, Saiyad MUHSIN—ARCHBOLD, W. A. J. —BAKHSH, Khan Sahib Maulvi KADIR.

History and geography cannot be eliminated from the compulsory course. There is a close correlation of literature with history. History furnishes material for literature, and literature lends itself to the proper presentment of history. Geography, again, is closely connected with history and, through history, with literature. Books of travel and adventure combine both literature and geography. The history of any people reflects itself on the literature and the literature, in its turn, reacts on the course of history.

Intellectual discipline is the result of ordered correlation of studies. The system which teaches language, history, geography, and each as an isolated subject, is without organic unity. Correlation preserves the individual importance of each subject and, at the same time, gives unity to the different parts. To enable the pupil to gain in breadth of vision and harmony of conception it is highly desirable that history and geography should be included in the school course along with literature and mathematics.

Bengali, which is ordinarily the vernacular of the Hindus and Muhammadans in Bengal, should retain its place as a compulsory subject up to the matriculation. The course will be overloaded if, in addition to history and geography, one of the second languages has to be studied also as a compulsory subject. The latter may be treated as an optional subject along with science, a knowledge of which is considered essential on all hands for the clear understanding of the affairs of everyday life. To qualify for the matriculation one must pass in all the compulsory subjects and in one or other of the two optional subjects.

I have included Urdu among the second languages to give a beneficial stimulus to the study of that growing language. Its intrinsic value as a language entitles it to this place. In high schools advanced students read Arabic or Persian as a second language in a way which can hardly pretend to mental training. If Urdu is adopted by the University as an additional second language a much higher grade of scholarship can be attained in a subject which can rightly be called the *lingua franca* of India. Sanskrit is the peculiar property of the Hindus, and Arabic and Persian of the Mussulmans. Urdu, which is the French of thousands of Indian people, can surely lay claim to an equal (if not higher) place with them. The admission of Urdu into the course will, without making any violent change in the system of instruction, greatly advance the interests of Mussulmans. It is only in the fitness of things that special facilities should be offered for the study of Urdu in schools attended by Muhammadan pupils.

ALI, Saiyad MUHSIN.

Commerce and agriculture and the laws of wealth.
Islamic studies, as in the proposed Dacca University.

ARCHBOLD, W. A. J.

There certainly ought to be a well-staffed medical college at Dacca. There is a great opportunity and a great need for it there.

Complaint is sometimes heard that science only means chemistry and physics. Botany and, possibly, other sciences might, indeed must, soon be more widely taught.

BAKHSH, Khan Sahib Maulvi KADIR.

Divinity is not now represented in the curricula of secondary schools in Bengal and the University of Calcutta and its colleges. It should be introduced.

Sanitation and hygiene are not represented in the curricula of secondary schools in Bengal. These should be introduced. Further, I would like to give an elementary knowledge of physics and chemistry to the students of the first three classes (top) in our high schools.

BANERJEA, J. R.—BANERJEA, Dr. PRAMATHANATH—BANERJEE, GAURANGANATH—. BANERJEE, Sir GOOROO DASS—BANERJEE, JAYGOPAL.

BANERJEA, J. R.

Agriculture, commercial science, and technology (including weaving, tanning, etc.). I believe there is a weaving institute at Serampore, but it is not a secondary school, nor is it a college of the University.

BANERJEA, Dr. PRAMATHANATH.

Agriculture, commerce, the applied sciences, and the industrial, as well as the fine, arts.

BANERJEE, GAURANGANATH.

I think that there are many branches of science and learning which are not now represented in the curricula of, and not actually taught in, secondary schools in Bengal and in the University of Calcutta or its colleges. I would strongly recommend the following :—

(*a*) Instruction, both practical and technical, such as arises out of work in school workshops, laboratories, and school gardens. The subjects taught in this division will be practical work, drawing, modelling, knowledge of materials and tools, and technical physics and chemistry as required in the trade concerned.

(*b*) Theoretical instruction of trade importance: it will comprise business correspondence, foreign languages, commercial geography, and history of art.

(*c*) Practical and theoretical civic instruction developed, on the one hand, by a methodical organisation of work, on the other hand, by special arrangements for school-life on the models of self-governing corporations.

(*d*) Instruction should also be given in the secondary schools and the colleges affiliated to the University in scientific agriculture, commerce, and technological industry.

(*e*) Naval and military training should also form a part of the University curriculum.

BANERJEE, Sir GOOROO DASS.

In my judgment, elementary physics, chemistry, and also elements of physiology should be taught in secondary schools, and Hindu medicine should be taught in our medical colleges.

The practical importance of physics and chemistry as branches of knowledge, and their theoretical importance as affording mental training and creating accurate habits of observation, are admitted by all. Some knowledge of the structure and functions of the different parts of the human body, whose healthy condition is necessary for efficient education, should also be possessed by every student.

The Hindu system of medicine, with all its errors in its theories, is a valuable depository of remedial agents which have effected cures and stood the test of time for centuries. And such a system is well worthy of study.

BANERJEE, JAYGOPAL.

Elementary anatomy, physiology, physics, chemistry, descriptive botany, commercial geography, elementary biology—these should be gradually introduced wherever resources are available.

In the collegiate stage industrial and commercial history, forestry, Hindu music, and Hindu medicine should be included in the curricula.

BANERJEE, Rai KUMUDINI KANTA, Bahadur—BANERJEE, M. N.—BANERJEE, MURALY DHAR.

BANERJEE, Rai KUMUDINI KANTA, Bahadur.

It is of importance to introduce agriculture, commerce, and technology as subjects of study in schools and colleges. Elementary science, such as physics, chemistry, biology, hygiene, and botany, should be introduced in secondary schools.

BANERJEE, M. N.

Elementary science in the secondary schools, as already mentioned. Agriculture, commerce, music, and the fine arts ought to be taught in the colleges.

BANERJEE, MURALY DHAR.

Elementary science should be introduced in secondary schools. Something should be done to teach Indian astronomy, medicine, religion, and more adequate arrangements are necessary for teaching Indian philosophy, either in the original or through translation, for their originality and importance as elements of culture. It is a pity that students of philosophy up to the graduate stage know nothing of the philosophy of their country.

To teach advanced courses in all Brahminic studies it would be necessary to organise a special college of Brahminic studies. The scheme for such a college is briefly outlined below:—

To make provision for the special study of Hindu religion, philosophy, and science (including medicine, mathematics, and astronomy) on improved methods a college of Brahminic studies should be organised, similar to the college of Islamic studies proposed in the Dacca University scheme. The materials for such a college are ready in the Sanskrit College and in the University College now teaching the post-graduate courses in Sanskrit. The *tol* and the English departments of the Sanskrit College and the department of the University now teaching the post-graduate courses in Sanskrit may be co-ordinated and organised into a complete college of Brahminical studies incorporated into the Calcutta University when it is raised to the status of a teaching university.

Now, these three departments exist as completely detached institutions without vital connection with one another, though they are close together, are maintained for one common object, and are taught mainly by a common staff. This separation has a weakening effect on each, while their union would produce the most striking results. The *tol* department in the Sanskrit College is obsolete in its method and the pupils who are trained in this method have no critical grasp or historic sense and can serve only as tools in the hands of scholars trained in modern methods of research. The preservation of this antiquated method of training without any attempt to modernise it can be justified by no useful ends. The English department of the Sanskrit College has also failed to solve the problem of "How to teach courses of Brahminic studies, with a thorough grounding in the English language, in Western culture, and modern methods of research?" The English department of the Sanskrit College, instead of fulfilling this high mission, has now been changed into an ordinary arts college which cannot claim to teach Sanskrit better than other colleges, and where the additional Sanskrit courses now taught as optional subjects are so superficial as not to justify its separate existence. The post-graduate courses in Sanskrit now taught by the University have also failed to solve the same problem. Most of the courses are avoided by the students as too advanced and too highly specialised for the graduates of the Calcutta University, and even those who pass the M.A. examination cannot properly assimilate the subjects and do not attain as sound a knowledge in their special subjects as the *tol* students. This drawback is recognised by the University itself, for in the present system of teaching post-graduate courses in Sanskrit provision has to be made for a double set of lecturers in each paper, scholars of the old school trained under the *tol* system and M.A.'s in Sanskrit of the University trained in Western methods, teach-

BANERJEE, MURALY DHAR—*contd.*—BANERJEE, RAVANESWAR.

ing by one set of these teachers exclusively being found unsatisfactory and not giving the best results. This amounts to a practical admission of the deficiency of the present University training. If scholars of the ideal type had been turned out by the University they must have combined the best features of the *tol* system with the western methods of research, and they must have assimilated the useful elements of both the cultures and, with their help, the services of the scholars of the old school could have been dispensed and, without diminishing the efficiency of the teaching staff.

To turn out such scholars ought to be the aim of the University. And such scholars can be turned out only by organising a properly equipped college of Brahminic studies. The present honours course in Sanskrit is purely literary. There is no provision in the present University curricula for teaching intermediate courses in the different branches of Brahminic learning that may lead up to the highly specialised and advanced groups of the M.A. courses in Sanskrit. It is not true that the present M.A. courses in Sanskrit are too advanced and too specialised. There is room for still greater specialisation. The drawback lies in this, that except in the literary course (Group A) they are not linked up with the matriculation stage by graduated courses of studies at the intermediate and graduate stages, by which method alone they can be thoroughly mastered and assimilated. It is impossible to master them thoroughly in two years. For this reason the University M.A.'s in Sanskrit are superficial, and are not so sound as the *tol* scholars who devote more time to mastering their special subjects. If, gradually, more specialised courses in Brahminic studies are introduced in the intermediate and graduate stages the M.A. courses in Sanskrit may be still more specialised and their standard further raised without any harm. Provision for teaching these special subjects can be made only in a special college. And the materials of the Sanskrit College, which is not at present producing the desired result for want of organisation, may be utilised by converting it into a college of Brahminic studies on the lines indicated above. For this purpose, courses corresponding to the first and second examinations in Sanskrit should be introduced as alternative subjects at the intermediate and B.A. stages leading up to the M.A. stage, the course of which should correspond to the highly specialised courses for the title examinations in Sanskrit.

BANERJEE, RAVANESWAR.

Hygiene, written in simple language and not infested with unintelligible chemistry, such as proteids and carbohydrates, should find a place in the matriculation curriculum.

Elementary science of an introductory nature, as contained in Huxley's "Primer," should be introduced. The apparatus required for the efficient teaching of this, the cost of which is not prohibitive, should be provided.

Physical geography should be in the matriculation course. It is at present included in the geography course, but the subject is not properly and suitably dealt with. A book like Geikie's "Physical Geography Primer," which was included in the former entrance course, is most suitable.

These three may form one group for examination, and one paper should be set for these, the marks being allotted in the following proportion :—

Hygiene	40
Physics	30
Physical geography	30

History, as well as geography, should be made compulsory, and the history course should include an outline of the history of England.

The inclusion of the science group will not cause excessive strain if the vernacular medium is adopted.

BANERJEE, SASI SEKHAR—BANERJEE, SUDHANSUKUMAR—BANERJI, UMACHARAN—BASU, Rai P. K, Bahadur—BASU, SATYENDRA NATH—Bengal Landholders' Association, Calcutta

BANERJEE, SASI SEKHAR.

I am in favour of the introduction of some branches of science in secondary schools of Bengal, such as chemistry, botany, descriptive astronomy, or hygiene; and in colleges technological and commercial education, as has already been referred to.

BANERJEE, SUDHANSUKUMAR.

The study of the elements of geography and the elementary history of India, as well as that of England, should be made compulsory for matriculation students (as was the practice before the introduction of the new regulations in 1900). Under the existing system a student may come out of the University leaving a distinguished record behind him without knowing anything about the history of the motherland, its geographical position, its rivers, forests, hills, and mountains, its population, products and resources, and its commerce and industries. This is certainly a deplorable state of affairs. The glorious history of England should also be seriously studied side by side with the history of India by every Indian student. There should also be a paper for the matriculation examination on elementary science, including elementary lessons in human physiology, elements of hygiene and sanitation, and a few elementary topics of physical science. The introduction of the study of music and drawing into the curricula of secondary schools is desirable, though it need not be compulsory for all students. As for the new branches of science and learning to be introduced into the curricula of the University of Calcutta and its colleges *vide* my reply to question 6.

BANERJI, UMACHARAN.

Hygiene and agriculture should be made optional subjects for the matriculation examination.

Chemistry or physics should be made compulsory for the intermediate course.

Books on commerce, agriculture, and industries might be incorporated as subjects of study in the I.Sc. and B.Sc. classes.

BASU, Rai P. K., Bahadur.

I would suggest eugenics, sanitary science, biology, and zoology.

BASU, SATYENDRA NATH.

History, geography and hygiene should be included in the curriculum of the matriculation examination, though no test of the candidate's knowledge of all of them need be insisted on by a formal university examination.

Bengal Landholders' Association, Calcutta.

Commercial, industrial, and agricultural subjects ought to be introduced into the curricula of our secondary schools. Secondary education should be complete in itself,

Bengal National Chamber of Commerce, Calcutta—Bethune College, Calcutta—BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN.

Bengal National Chamber of Commerce, Calcutta.

Agriculture, commerce, and industrial technology are not now represented in the curriculum of secondary schools in the University of Calcutta or its colleges. They should be introduced.

Bethune College, Calcutta.

Janau, Miss A. L. Banerjee, Miss Marie.

Hygiene or sanitary science; physiology, first aid, and nature study should be introduced into the curricula of secondary schools for all students, whether male or female. They may be included among the optional subjects for matriculation students. Domestic economy should be a compulsory subject for female students in the school. Domestic economy and scientific needlework should also be optional subjects for female students at the intermediate stage for the benefit of those who follow a university course with the object of becoming teachers.

As far as girls' schools are concerned domestic economy, hygiene, first aid, and scientific needlework should all be compulsory without necessarily being subject to examination by the University at the matriculation examination.

The importance of these subjects being obvious no comment is needed.

Janau, Miss A. L.

The subjects not represented at all in any examination of standing in India are music, drawing, drill, and kindergarten. It is impossible to obtain teachers properly qualified and with diplomas in these subjects, except from outside India, and all these subjects should be a part of any broad curriculum in schools.

There should, therefore, be degrees in the first two, and probably in the last, and some diploma of real value given for a thorough study of the third subject named, which might be made to include eurhythmics. It might seem needless to say that the music degree should include in its syllabus *Indian* music initially and essentially and western music only in its later stages were it not that philosophy, as studied for the B.A. degree, includes no Indian philosophy but only Western—Indian philosophy being relegated to the M. A. degree. Such a procedure is surely without parallel in any other country.

BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN.

Hygiene, drawing, and elementary science should be taught in secondary schools. In colleges, after the I.Sc. or B. Sc. stage, students may specialise in agriculture, commerce, or technology. Courses in the following branches of technology—tanning, textile engineering, dyeing, metallurgy, and chemical engineering—may be introduced on lines similar to those of the chemical technology course in the Imperial College of Science, London.

India is a country labouring under many and great disadvantages. It is obliged to export all its raw materials, of which it produces an immense variety, and import manufactured goods under great disabilities of cost and carriage. The difficulty of supporting the increasing population of India is recognised by everyone, and her sons must obtain their living through channels other than those available at present and, to enable them to do so with success, the means of obtaining the finest scientific training in various arts and manufactures should be thrown open to every capable Indian on nominal terms.

India was importing annually from Germany and other parts of continental Europe millions of pounds in value of chemical manufactures, coal-tar dyes, colours, pigments, medicinal preparations, etc. There is no sound reason whatever, except the want of high technical training, why all these products might not be made in India, whence a great proportion of raw materials required for their manufacture is obtained.

BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN—*contd.*—BHATTACHARYYA, BAIKUNTHA NATH—BHATTACHARYYA, DIBAKAR—BHATTACHARYYA, HARIDAS—BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA—BHOWAL, GOVINDA CHANDRA.

It should be recognised as a duty by the University, the Government, the municipalities, and the people in general that the amplest provision must be made and no expense spared to get the best buildings, the most complete and modern equipment, and the most efficient teaching in this direction, which would be but a tithe of the efforts being made now by other nations for their industrial progress.

It is not suggested that the methods of other countries should be followed in all respects. There may be modifications to suit the peculiar circumstances of India, but it is imperatively necessary that the advantages of industrial education enjoyed elsewhere should, without further delay, be placed within the reach of every capable Indian.

BHATTACHARYYA, BAIKUNTHA NATH.

For answer to the first part of the question please see my answer to question 8 (ii). Under the head elemenary science should come physics, chemistry, and botany.

BHATTACHARYYA, DIBAKAR.

Elementary science, chemistry, and hygiene may conveniently be introduced as optional subjects. If the vernacular be made the medium of instruction physics chemistry, history, and geography should be made compulsory.

BHATTACHARYYA, HARIDAS.

Aesthetic education is totally neglected. In schools for girls there are some arrangements for teaching the rudiments of singing, music, painting, etc., but no such arrangements exist in boys' institutions. I think that the University ought to take up, or ought to recognise, the teaching of fine arts, and grant diplomas. I am not, however, in favour of fine arts being a major study. They should be taught side by side with literature up to the matriculation standard at least; if possible, up to the intermediate standard. Clay-modelling and sculpture ought to be introduced into the existing art schools, and these schools ought to be affiliated to the University.

Agricultural, industrial, and commercial education should be reorganised on the lines suggested in my answers to questions 6 and 7.

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

Simple lessons in physics, botany, and sanitary science may be introduced into the curricula of secondary schools.

BHOWAL, GOVINDA CHANDRA.

Elementary chemistry, agriculture, hygiene, elementary mechanics, and industry should be taught in secondary schools.

The sciences of agriculture, commerce, applied chemistry, and physics should be introduced into the colleges under the University.

QUESTION 13.

BISWAS, SARATLAL—BOROOAH, JNANADABHIRAM—BOSE, B. C.—BOSE, G. C.—BOSE, HARAKANTA.

BISWAS, SARATLAL.

Yes.

In secondary schools :—

(*a*) Elementary science, including personal hygiene, physics, chemistry, botany, etc. (as suggested in my answer to question 1).

(*b*) Drawing.

In colleges or in the University :—

(i) Geography.

(ii) Such branches of applied science and technology as commerce, agriculture, fine arts, ayurved, homœopathy, etc.

BOROOAH, JNANADABHIRAM.

The ayurvedic and hakimi systems of medicines in the University. Shorthand, typewriting, and book-keeping in secondary schools.

BOSE, B. C.

I would suggest that, in secondary schools, elementary *hygiene* and *sanitation*, besides *geography* and *Indian history*, should be made "compulsory" subjects of study. Some knowledge of *perspective drawing*, *vernacular prosody*, and the rudiments of *physical sciences* would also be highly commendable. For teaching languages there ought to be prescribed text-books; and these should be of a nature calculated to give high ideals of morality and religion, breadth of mind, etc., in an attractive and impressive manner.

All college students should have an acquaintance with *descriptive astronomy*, as had once been the rule.

Provision should be made, as early as possible, for the teaching of commerce and agriculture, as well as technology, as contemplated in my answer to question 7. None of these subjects can, of course, be made compulsory; only those who wish to take them up should be given every facility and encouragement.

BOSE, G. C.

In the University of Calcutta zoology has practically no place, and the study of it should be introduced in earnest. A few other branches of learning not now represented in the curricula of the University of Calcutta or its colleges have been referred to for inclusion in my answer to question 6. In secondary schools elementary science in the form of nature studies, both observational and experimental, should be introduced, and so also drawing and hygiene.

BOSE, HARAKANTA.

I should first of all like to suggest in this connection that for Sanskrit, as well as for mathematics, there should be one compulsory course covering the present additional and compulsory courses. History and geography should both be made compulsory subjects

BOSE HARAKANTA—*contd.*—BOSE, KHUDI RAM—BOSE, Miss MRINALINI.

of study; and mechanics should be omitted. The following subjects should be added to the matriculation curriculum :—

These three subjects may be taught through the medium of the vernacular.

(i) History—
  (*a*) India.
  (*b*) England.
  (*c*) Greece.
  (*d*) Rome.

(ii) Geography—
  (*a*) Political.
  (*b*) Commercial.
  (*c*) Physical.
  (*d*) Mathematical (elementary).

(iii) Elementary sciences—
  (*a*) Hygiene—compulsory.
  (*b*) Physiology.
  (*c*) Botany.
  (*d*) Chemistry.
  (*e*) Physics.

Any two of these four sciences must be taken up by every pupil.

(iv) Drawing—
  (*a*) Freehand.
  (*b*) Model.
  (*c*) From nature.

(v) Music—
  (*a*) Vocal.
  (*b*) Instrumental.

The University should hold no examination in drawing and music.

BOSE, KHUDI RAM.

Geography (other than mathematical) and the history of the English people, as also elementary hygiene, ought to be adopted as compulsory subjects of study at the matriculation stage; the curriculum in English should embrace reflective, preceptive, and biographical pieces or treatises to be studied as *compulsory* subjects as much in the interest of intellectual, as that of sound ethical, training.

At the I.A., I.Sc., B.A., and B.Sc. stages English literature (including some of the popular plays of Shakespeare and a series of higher reflective, preceptive, and biographical pieces) should be adopted as *compulsory* subjects of study. On the arts side history (ancient and modern), the elements of logic and psychology and hygiene, should be adopted, by way of a graduated series, as subjects of study with the help of standard works on the subjects *to be studied compulsorily, but not optionally*, through the vague and shadowy syllabuses that have conduced to accentuate the pernicious practice of unintelligent cramming more than anything else during recent years, although it may have been designed to counteract this evil effectively. The very reverse of it has been the actual outcome. The systematic study of a standard work—indubitably of very great educational value in a subject—has come to be viewed as a sort of academic anachronism.

BOSE, Miss MRINALINI.

See my answer to question 8.

Elementary physics and chemistry might be introduced with advantage. Both history (including English and Indian) and geography should be taught right up to the matriculation class as compulsory subjects.

BOSE, RADHIKANATH.

The object which every framer of a university curriculum should have in view is to give its members a fair amount of general knowledge as a broad ground work, and then to educate them particularly in some special branch, or branches of learning; in other words, to make them first know something of everything, and then everything of something. What appears to me to be the main defect in our present University curriculum is its tendency to promote specialisation at the cost of general knowledge. I see, for example, no educational reason why such important subjects as history and geography should be left to the option of our matriculation candidates. Geography is a necessary adjunct of history, and a thorough knowledge of the physical features of a country is indispensable for the right understanding of its history. Our University, however, has departed from the commonsense view of these two allied courses of study by allowing students to pass the matriculation and take up history in the I.A. and B.A. courses without being equipped with an adequate knowledge of geography. I have personally experienced not a little difficulty in teaching works of English literature to students of the intermediate classes who have absolutely no idea of English History and are unacquainted with the commonest geographical names. These two subjects should be made compulsory for all matriculation students. A rudimentary knowledge of the natural sciences should also be imparted to students before their entrance to the University. Most of our matriculates take up logic as an optional subject for the I.A., and some knowledge of an experimental science would greatly help them in understanding the principles of inductive logic.

The matriculation syllabus, therefore, should comprise the following subjects:—

(*a*) English.
(*b*) Vernacular.
(*c*) Sanskrit, Persian, or any other classical language.
(*d*) Mathematics—arithmetic, algebra, geometry.
(*e*) History of India and England.
(*f*) Geography.
(*g*) Elementary physics and chemistry.

As I have elsewhere suggested the University need not hold a formal examination in all these subjects, but the students' proficiency in some of them—particularly those which may be taught through the medium of the vernaculars—may be judged by their results in the periodical examinations of their schools. Besides teaching the subjects included in the above syllabus our schools should also hold optional classes in drawing and mechanics and encourage elocution by the award of special prizes.

At the intermediate stage of the University I would recommend the adoption of the following curricula for the arts and science courses:—

I.A.:—

(i) English.
(ii) Vernacular.
(iii) Logic.
(iv) and (v) Two of the following subjects:—
  (A) Mathematics.
  (B) Sanskrit, or any other classical language.
  (C) History.
  (D) Geography. (Geography should be compulsory for all students who take up history.)
(vi) One of the following subjects:—
  (1) Physics.
  (2) Chemistry.
  (3) Physiology.

I.Sc. :—
(i) English.
(ii) Vernacular.
(iii) Logic.
(iv) Mathematics.
(v) and (vi) Two of the following science subjects :—
(A) Physics,
(B) Chemistry.
(C) Botany.
(D) Physiology.
(E) Zoology.

(I am in favour of making logic a part of the intermediate course, both in arts and science, as I think that some knowledge of this subject is indispensable to a liberal education. Whatever profession a student may adopt in life, whatever branch of learning he may specialise in, it is sure to be of incalculable help to him everywhere.)

Here, also, as in the case of the matriculation, a student, although he is to receive instruction in six different subjects, need not be subjected to a formal University examination in each of them. I think he may be required to pass the University examination in English, vernacular, and two other subjects, *viz.*, (iii) and either (iv) or (v) in the case of the I.A., and (iv) and either (v) or (vi) in the case of the I.Sc.

With regard to the curricula of the higher University examinations I have no suggestions to offer except that some sort of teaching in English should be imparted to students preparing for the B.Sc. degree (*vide* my answer to question 11).

Before concluding my answer to the present question I must urge the desirability of making adequate provision for commercial, industrial, and agricultural training in our University. A true collegiate education centering round agriculture or industry is a great desideratum in our country. The few industrial or commercial schools that we have at present are not affiliated to the University and do not, consequently, attract a sufficient number of students. They form, in fact, an isolated and inferior caste in the present educational organisation. I would, therefore, recommend the introduction of special courses of study in these subjects from the intermediate stage of the University. Agriculture, being the backbone of Indian prosperity, should receive the greatest encouragement. I think there should be special university degrees in agriculture.

BROWN, Rev. A. E.

We consider that elementary physics and chemistry should be taught in the higher classes of high schools.

We also think that botany might be taught with much advantage as developing powers of observation and involving schools in the mofussil in less initial difficulty and expense than other similar subjects.

CHAKRAVARTI, BRAJALAL.

We require as compulsory subjects a simple course of hygiene and agriculture in the school and physiology and a scientific study of agriculture in the college.

CHAKRAVARTI, CHINTAHARAN.

The science of sanitation and hygiene should be taught in schools and colleges.

CHAKRAVARTI, CHINTA HARAN—CHAKRAVARTI, Rai MON MOHAN, Bahadur—CHAKRAVARTY, ANUKULCHANDRA—CHANDA, The Hon'ble Mr. KAMINI KUMAR—CHATTERJEE, Rai LALITMOHAN, Bahadur—CHATTERJEE, P. K.

CHAKRAVARTI, CHINTA HARAN.

The history of England, elementary science, hygiene, and drawing should again be included in the curriculum of secondary schools and made compulsory subjects in the matriculation examination. Geography also should be made a compulsory subject. Some sort of training in music in secondary schools appears to be desirable.

CHAKRAVARTI, Rai MON MOHAN, Bahadur.

It strikes me that there is room for a school of journalists. The Press is becoming more and more powerful, and is rapidly moulding public opinion. At the same time, the crude generalities, exploded fallacies, and historical misstatements that one comes across in newspapers and magazines are appalling. Some training for journalism appears, therefore, absolutely necessary. Talking of journalism a school of printers would also be very useful, the dearth of good printers being a general complaint.

CHAKRAVARTY, ANUKULCHANDRA.

As Bengal is essentially an agricultural country I think agriculture and agricultural chemistry should be introduced. Technology, including applied chemistry, should also be taught in our schools and colleges.

CHANDA, The Hon'ble Mr. KAMINI KUMAR.

I would include biology and scientific agriculture in secondary schools.

CHATTERJEE, Rai LALITMOHAN, Bahadur.

I would suggest the inclusion of some of the classical and modern languages of Europe, *e.g.*, Latin, French, etc. Elementary science should be introduced into schools.

CHATTERJEE, P. K.

It is desirable that elementary training in sciences, such as physics, chemistry, and botany, should form part of the courses of study in the higher classes of secondary schools. The real obstacle to the introduction of these subjects would be the want of necessary funds. Government schools might lead the way in this matter.

Further, history, both Indian and English, and geography should be made compulsory subjects for students going up for the matriculation examination. I know many fellow-professors who are of this opinion. Many allusions in English literature presuppose a knowledge of English history, and it is extremely difficult to teach economics to students who have no knowledge of history and geography.

Economics should be recognised by the University as a curriculum of study for the intermediate arts. It is a fairly difficult subject, and it is highly desirable, for an adequate knowledge of the subject, that students should take it up at an earlier stage of their studies than at present. There are easy books on the subject suitable for such students, and more books of this kind might be forthcoming in the near future,

CHATTERJEE, PRAMATHANATH.

A high English school in Western Bengal is a curious blending of two types of schools. The lower school is a distinct type of a vernacular school, with English as a compulsory second language and with a course of studies more or less scientific in character. This is generally the case with all high schools which are aided by the Department. The science subjects are dropped in the upper school, and the course of studies in the upper school is largely determined by the University matriculation examination. There is, thus, no continuity of studies in a high English school, and the lowest stage does not necessarily lead to the highest through easy intermediate steps. History, geography, hygiene, and elementary science, including physics, astronomy, botany, and zoology, etc., are taught in the lower school, but as soon as the boy goes to the upper school he drops these subjects and enters upon a course of studies which is partly prescribed by the Department and partly by the University. Thus, in the modelling of a high English school course, three agencies are at work. The course of studies from the lowest up to the fifth class is drawn up in accordance with the vernacular scheme of education sanctioned by the Government of Bengal. The curricula of studies in the fourth and the third classes are prescribed by the divisional inspector of schools. The top two classes teach the matriculation course prescribed by the University.

In the matriculation course neither history nor geography is a compulsory subject of study. As regards science, mechanics is allowed to be taught as an optional subject, but is rarely taken up in high English schools. The history of India is taught in most of the high English schools recognised by the University, but it is not a popular subject and a very large number of boys do not read it at all. Geography is not taught along with history unless the school is specially affiliated in that subject (geography). It often happens that in the same school boys read history without reading geography, and learn geography without reading history. The history of England is altogether omitted from the course of studies prescribed for the matriculation examination, although in reading English literature a knowledge of the history of England is indispensably necessary.

The subjects of study for the matriculation examination are as follows:—

Compulsory—

(*a*) English.
(*b*) A vernacular.
(*c*) Mathematics.
(*d*) A classical language and any two of the following subjects:—

(i) The history of India.
(ii) Geography.
(iii) Mechanics.
(iv) Additional mathematics.
(v) Additional classical language.

The curriculum is defective in many ways. In the first place, Indian boys are not required to read the history and geography of their own country as compulsory subjects—with the result that a young Indian may come out as an M.A. or an M.Sc. and yet he may know nothing, or next to nothing, about the history and geography of his own country.

In the second place, science, with the exception of mechanics, which is an optional subject and which very few boys take up, is not taught in high English schools. An Indian boy may pass his B.A. or M.A. and yet he may know nothing about the elementary principles of physics or chemistry.

History (the history of India, as well as the history of England) and geography (including physical geography) should be made compulsory subjects of study in the matriculation course. Elementary physics and chemistry should also be taught in high English schools and made alternative, if necessary, with a classical language.

CHATTERJEE, PRAMATHANATH—*contd.*—CHATTERJEE, RAMANANDA.

Specialisation in arts and science should begin after the *intermediate* stage. The intermediate course should include the following subjects:—

(A) English.
(B) History.
(C) Mathematics, or a classical language.
(D) Physics (purely experimental).
(E) Chemistry.

I think logic may be taught at a later stage as it is a subject which can be more appropriately taught with mental and moral science in the B.A. in the arts course.

After the intermediate the course of studies may be bifurcated and we may have the B.A. and B.Sc.

In the B.Sc. course provision should be made for the teaching of applied sciences.

CHATTERJEE, RAMANANDA.

I have generally answered this question in answering question 6.

In addition to what I have said before I would say that it is important to teach human physiology, hygiene, sanitation, and civics in boys' and girls' schools, and domestic science also in girls' schools. The teaching of some science in schools is of vital importance. Natural history and botany may be taught to children without much expense. Though our University and Education Department have not encouraged the study of science in schools it is rather late in the day to explain its need. Still, I may be permitted to quote what Professor Sadler wrote in an article contributed to the *Edinburgh Review*:—

> "The theory is that, before a boy can be deemed right for the University (to which it is assumed that most pupils from higher secondary schools will wish to proceed, and where more specialised studies and investigations await his attention) he must be initiated into each of the chief methods by which the mind arrives at truth..... He must study the abstract relations of forms and numbers, and become proficient in deductive reasoning. He must study nature, and realise by observation and instruction what amount and quality of evidence a valid inductive generalisation requires. He must study language (his mother tongue and at least one other) in order that he may learn by analysis and comparison the logic of human speech. He must study the record of the past through history and literature in order that he may know what the human race (and particularly his own countrymen) have achieved; how the great seers and poets have interpreted the experience of life, how, by the collection and testing of evidence, the mind may determine the truth of past events and by what canons of critical judgment it may distinguish fair from foul." (*The Edinburgh Review*, October, 1916, page 349.)

I may be permitted to quote also what Sir Arthur Evans said in the course of his presidential address at the Newcastle meeting of the British Association, delivered on September 5, 1916:—

> "It is a lamentable fact that beyond any nation of the West the bulk of our people remains sunk not in comparative ignorance only—for that is less difficult to overcome—but in intellectual apathy. The dull *incuria* of the parents is reflected in the children, and the desire for the acquirement of knowledge in our schools and colleges is appreciably less than elsewhere. So, too, with the scientific side of education; it is not so much the actual amount of science taught that is in question—insufficient as that is—as the instillation of the scientific spirit itself—the perception of methods, the sacred thirst for investigation.
>
> "But can we despair of the educational future of a people that has risen to the full height of the great emergency with which it was confronted?.....

CHATTERJEE, RAMANANDA—*contd.*—CHATTERJEE, SUNITI KUMAR—CHATTERJI, MOHINI MOHAN—CHAUDHURI, The Hon'ble Justice Sir ASUTOSH—CHAUDHURI, BHUBAN MOHAN—CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

"We must all bow before the hard necessity of the moment. But let us, who still have the opportunity of doing so, at least prepare for the even more serious struggle that must ensue against the enemy in our midst, that gnaws our vitals. We have to deal with ignorance, apathy, the non-scientific mental attitude, the absorption of popular interest in sports and amusements.

"And what, meanwhile, is the attitude of those in power, of our Government, still more of our permanent officials? A cheap epigram is worn threadbare in order to justify the ingrained distrust of expert, in other words scientific, advice on the part of our public offices."

In the college courses for economics, descriptive economics, and the study of some Indian problem, as famines, or of some Indian industry, as that of jute, should have a prominent place, as recommended in the Dacca University Committee's Report, from which the passages relating thereto will be found quoted in my remarks on the Dacca scheme given with reference to my answer to question 4. Great importance ought also to be attached to statistics and finance, either as separate subjects or as parts of the economics courses.

In the higher history courses a knowledge of numismatics and epigraphy should be demanded.

CHATTERJEE, SUNITI KUMAR.

Geography, elementary physics, chemistry, and hygiene should be reintroduced in the matriculation curriculum. There should be adequate provision for the study of agricultural, commercial, and technological sciences in the University. Greater attention should be given to the vernaculars, and there should be wider facilities for the study of medicine and engineering.

CHATTERJI, MOHINI MOHAN.

In the interests of the country comparative theology, embracing all religions claiming to be revealed, should be studied as extensively as possible under suitable conditions.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

Commercial, industrial, and agricultural subjects ought to be introduced in the curricula of our secondary schools. Secondary education should be complete in itself.

CHAUDHURI, BHUBAN MOHAN.

In secondary schools hygiene and elementary science should form parts of the subjects taught and commerce should be included in the college curricula and there should be a degree in that subject.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

I would insist that a general knowledge of all the subjects required in the ordinary course of business should be imparted in the secondary schools of Bengal. Under the present arrangements one may obtain the B.A. or M.A. degree without knowing anything of history or geography. I would allow no option up to the matriculation standard.

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY—CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur.

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY.

YES; a little of agriculture and chemistry ought to be taught in our secondary schools and it is of essential importance that agriculture, commerce, and technology should be added to the subjects of study in our University.

The oriental and ayurvedic systems of medicine should also be studied properly in our universities under a separate faculty named the oriental faculty under which the study of Sanskrit, philosophy, *Puranas*, *Itihasas*, *Dharmasastras*, *and Upanishads* should be introduced in our University, unless it be possible to establish an oriental university on the lines suggested before in my answer to question 4.

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur.

YES; the history of Islamic civilisation is one of the subjects which ought to be taught in every university in India, more especially in the Calcutta University, which is intended to look to the educational requirements of a population 52 per cent of which is composed of Muhammadans. It seems strange that the University never seriously thought of this desideratum. While chairs are established, and provision is made for the history of the ancient civilisation of India, the University has not allowed its Muhammadan students to study their past, glorious as it is considered to be by Hindus and Europeans alike. I, therefore, strongly suggest that provision for the teaching of this subject should be made not only in the college department, but also in the school department.

Another subject which is not at present provided for in the University curriculum is religious and moral instruction. No education would be complete or wholesome which did not aim at the building of character, or which did not instil into the minds of young men a veneration and respect for their religion. At least the Muhammadans consider this to be so. The absence of any such provision in our educational system is mainly responsible for the backwardness of Muhammadans in English education. I need not go into the long history of this aspect of the question and show how, after the resumption of authority in Bengal, the British Government at first instituted a system of education by establishing the Calcutta Madrassah, through which the Muhammadan need for both religious and secular education was for a long time attended to, but which was suddenly uprooted and supplanted in the time of Lord Bentinck by another system which for its all-engrossing secular character could not appeal to the community at large and which gradually caused it to lag behind in the race of life. I shall content myself by giving a few passages from the reports of those who have had to deal with the problem of Muhammadan education from time to time. To begin with, Mr. E. C. Baley, whose attention was first drawn to the deplorable condition of Muhammadans in the matter of their education, says :—

> "Is it any subject for wonder that they hold aloof from a system which, however good in itself, made no concession to their prejudices, made in fact no provision for what they esteemed their necessities, and which was in its nature unavoidably antagonistic to their interests and at variance with their social traditions?"

Sir William Hunter says :—

> "The language of our Government schools in Lower Bengal is Hindu, and the masters are Hindus. The Musalmans with one consent spurned the instruction of idolaters through the medium of idolatry.....The astute Hindu has covered the country with schools adapted to the wants of his own community, but wholly unsuited to the Muhammadans..... Our rural schools seldom enable a Muhammadan to learn the tongue necessary for his holding a respectable position in life and for the performance of his religious duties."

The Education Commission of 1882 appointed by Lord Ripon succinctly summed up the Muhammadan situation :—

> "Apart from the social and historical conditions of the Muhammadan community in India there are causes of strictly educational character which

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur—*contd.*—CHOUDHURY, Rai YATINDRA NATH.

heavily weigh it in the race of life. The teaching of the mosque must precede the lessons of the school. The one object of a young Hindu is to fit him for an official or professional career. But before the young Muhammadan is allowed to turn his thoughts to secular instruction he must commonly pass some years in going through a course of sacred learning. The Muhammadan boy, therefore, enters school later than the Hindu. In the second place, he very often leaves the school at an earlier age. The Muhammadan parent belonging to the better classes is usually poorer than the Hindu parent in a corresponding social position. He cannot afford to give his son so complete an education. In the third place, irrespective of his worldly means, the Muhammadan parent often chooses for his son while at school an education which will secure for him an honoured place among the learned of his community, rather than one which will command success in the modern professions or in official life. The years which the young Hindu gives to English and mathematics in a public school the young Muhammadan devotes in a Madrassah to Arabic and the law and theology of Islam. When such an education is completed it is to the vocation of a man of learning, rather than to the more profitable professions, that the thoughts of a promising Muhammadan youth naturally turn. The above are the three principal causes of an educational character which retarded the prosperity of the Musalmans."

Though, since then, the Muhammadans have advanced in education, the absence of provision of religious and moral education in schools obliges the Muhammadan youth to spend a considerable time at religious Madrassahs before he joins the public school, and the consequence is that he is adversely compared with the students of other denominations who join the school earlier. I cannot, therefore, too strongly emphasise the need for an early introduction of this subject into the school curriculum. The serious charge levelled at our young English-educated men is that they are growing irreligious and are losing touch with their traditional culture and traditional morality; and the educational system would be wanting indeed in its duty to the people if provision of the kind suggested is not made under it. There is no need to labour under an apprehension that the policy of Government is one of neutrality in this matter. I may, for the information of the Commission, just refer to the Government of India's letter No. 1257—1264, dated the 4th September, 1911, asking the local Government to appoint a committee to enquire into the question of providing moral and religious education in the schools, and also to the conclusion arrived at by that committee at Dacca on the 20th to 23rd March, 1912, and at Calcutta on the 2nd to 5th December, 1912. I need hardly point out that to give instruction to students in their own religion constitutes no breach in the policy of neutrality Government may observe. It may be noted that the demand for denominational universities made both by Hindus as well as Muhammadans in the country is primarily intended to satisfy the great need for such instruction. I dare say that had the Government and the universities taken up this matter themselves in proper time the respective communities would not have had an opportunity to ask for separate universities of their own. I may add that with the establishment of the Hindu University at Benares and a Muhammadan one at Aligarh the need for religious instruction in our public institutions will not be entirely satisfied unless the other existing universities and those that may come into existence in the near future view this question in its proper perspective and make necessary provision for the teaching of the subject.

CHOUDHURY, Rai YATINDRA NATH.

The branches of science and other humane learning which are now neglected and which, I think, ought to be encouraged are to be found in the previous portion of my answer and, for an easy reference, I beg to name some of them here. They are Indian history and antiquity, history of Indian culture, different schools of Indian philosophy and logic, sociology, etc. The other important branch which has been neglected most is technology.

CULLIS, Dr. C. E.—CUNNINGHAM, The Hon'ble Mr. J. R.—DAS, Rai BHUPATINATH, Bahadur—DAS GUPTA, HEM CHANDRA—DAS GUPTA, KARUNA KANTA—DAS GUPTA, SURENDRANATH.

CULLIS, Dr. C. E.

More attention should be paid to elementary and higher technical education. But this should not be the concern of the University.

CUNNINGHAM, The Hon'ble Mr. J. R.

This question admits of only one answer. There is no science taught in our schools; and, while a reasonable range of scientific study is set forth by the University, the biological sciences are ruled out of account by the regulations, which have the practical effect of driving all students into the compartment—chemistry, physics, mathematics—and excluding men who have not a mathematical bent from any systematic study of science.

DAS, Rai BHUPATINATH, Bahadur.

Few of the colleges teach scientific subjects other than physics and chemistry. Geology should be taught in some of the colleges, and also botany. I do not think many of the schools will be able to arrange for instruction in a scientific subject. Geography, including physical geography, physics, and botany may be introduced into schools.

DAS GUPTA, HEM CHANDRA.

Secondary schools in Bengal have no uniformity of standard in their lower classes and, accordingly, in many schools the elementary principles of nature study are not taught, and even in many of the schools where they are taught the method of teaching is extremely defective. Well-paid teachers should be appointed in secondary schools. The University draws its material from secondary schools, and if the teaching in them remains defective nothing will raise the general level of the University education. The elementary principles of hygiene and sanitation shall be made compulsory in the lower classes of secondary schools.

The Calcutta University should introduce the teaching of mining, mechanical engineering, electrical engineering, agriculture, commerce, ayurvedic medicine, and zoology.

DAS GUPTA, KARUNA KANTA.

History and geography should be made compulsory subjects of study up to the matriculation standard. Elementary mensuration may also be added to mathematics. This may be expected to be of much use to those boys whose general course of education will stop at the matriculation.

DAS GUPTA, SURENDRANATH.

In the University I think there is no arrangement for teaching biology, which is one of the most prominent sciences in modern times. Music also ought to find a place in the curricula of graduate studies. Our educated people look to music with an eye of indifference, and it is for this reason that Hindu music is on the way to being lost altogether, especially the scientific study of it. If Hindu, Muhammadan, and English music are studied side by side, with special stress on the first two, then it may be possible within a short time to revive an important science which is on the wane and may even, for want of encouragement, die out altogether. If the contributions of different parts of India, especially of South India, be studied in a comparative light, a real service will be done to one of the oldest of Indian arts.

DATTA, BIRENDRA KUMAR—DE, SATISCHANDRA—DE, SUSHIL KUMAR—DEY, BARODA PROSAUD—DEY, N. N.—DHAR, Rai Sahib BIHARI LAL.

DATTA, BIRENDRA KUMAR.

Amongst others, I would like to see the study of the following introduced :—

(*a*) Science of agriculture.
(*b*) Applied chemistry.
(*c*) Eugenics.
(*d*) Commercial education.
(*e*) Sanitation and hygiene, the study of which should be made compulsory for all students.

There is much room for improvement in this respect. Hitherto, our educational activities have been mainly confined to what is known as intellectual education. There should be arrangements for the study and pursuit of technical, industrial, and commercial education.

DE, SATISCHANDRA.

Various branches of applied science; commercial education; agricultural studies.

DE, SUSHIL KUMAR.

I have already pointed out in my answer to question 1 that the necessity of having a general knowledge of French and German in the case of advanced students proceeding to higher degrees, or willing to do research work, should be recognised and proper facilities should be given for some practical training in the use of these languages.

The only sources of information now open to the majority of Indian students are works written in English; but a working knowledge of the other leading languages of Europe would certainly broaden their outlook and give them access to the labours of foreign specialists and savants which are often indispensable.

Provision should also be made to establish a degree for comparative literature, the study of which, although new, ought to be introduced and encouraged.

Mention has already been made of the desirability of the University starting classes for applied science and technology.

DEY, BARODA PROSAUD.

Elementary primers of science in all branches should be introduced in secondary schools, and they should be developed in university courses.

DEY, N. N.

I have already mentioned in my answer to question 8 that science should be introduced in the school stage as a compulsory subject. And in the pre-university course all the subjects leading to all the different branches of science and technology training ought to be compulsory up to the pre-university course.

DHAR, Rai Sahib BIHARI LAL.

Sanitary science should be introduced.

D'Souza, P. G.—Dutt, P. N.—Dutt, Rebati Raman—Dutta, Promode Chandra—European Association, Calcutta—Fawcus, G. E.—Ganguli, Surendra Mohan.

D'Souza, P. G.

Public administration, commerce, social studies, extension and publication work may be introduced with advantage.

Dutt, P. N.

Kindly see my answers to questions 6 and 7 in this connection. Having regard to the great development of insurance companies the Commission may consider whether training should not be provided for the profession of an actuary.

Dutt, Rebati Raman.

I have already said that I would strongly suggest the introduction of history and geography as compulsory subjects for the matriculation examination and of a science primer dealing with the general principles of physics, with a few chapters on physiology and hygiene. All these subjects would, however, be taught in Bengali. There will be set apart half an hour every day for religious instruction—Hindu theology to the Hindus and Muhammadanism to the Muhammadans. By our religion we ordinarily understand our *Puja*, *Brata*, *Achar*, and *Diksha* and there should be compiled a text book to explain the historical origin and significance of the several *Pujas* and *Bratas*, the social or physiological significance of the *Achars*, and the sublimity of the *Diksha*. A similar text-book may be compiled to explain the several Muhammadan ceremonies and the sublime significance of their *Namaj*. It is ridiculous that many of us do not know what our ceremonies are, and it is no wonder we lose our reverence for them. I am sure religious instruction from text books of the above type would implant a very deep feeling of respect in the young and impressionable student's mind and he will grow a true man—true to his neighbours and true to God.

Dutta, Promode Chandra.

Hygiene in the schools.

European Association, Calcutta.

We consider that more might be done to popularise agricultural education by making the teaching of elementary science have a more constant reference to the realities of life, and in other ways.

Fawcus, G. E.

I think it is desirable that elementary chemistry, physics, and botany should be taught in secondary schools. Geography also should be a compulsory subject up to the matriculation standard.

Ganguli, Surendra Mohan.

The standard of education in secondary schools should be a little higher than it is now and, if necessary, the period of training in secondary schools may be extended. In fact, the education in secondary schools should be of such a nature that the ordinary student may do something for himself in life, even though he has no university training.

No option should be left to students in the selection of subjects such as History, geography, etc. These subjects should be made compulsory.

The following subjects should be included in the curricula of secondary schools:—

(*a*) Sanitary science.
(*b*) Practical knowledge of common plants and animals.
(*c*) A general study of the ancient literature of the country in its general aspects, such as the *Ramayan*, the *Mahabharat*, the *Puranas*, etc.
(*d*) Elementary physics and chemistry.

The course may appear to be heavy, but, if the vernacular is used as the medium of instruction and of examination, students will find it easy and interesting. Also there will be a saving of time if students are required to learn these subjects at different periods, instead of going through the same subjects every year during their school career.

GANGULI, SYAMACHARAN.

According to my view of a sound general education, as enunciated in my reply to question 8, I would have Mathematics, Physics, Chemistry, Physiology, Zoology, Botany, Geology, History, Economics, Logic, Psychology, Ethics, and Sociology—all in a moderate measure—distributed over the University course up to the B.A. standard. A classical language, German, French, or Persian, optionally should also form part of the course, I think. Some knowledge of psychology is necessary for all students. The great biologist, Professor Huxley, justly laid stress on Psychology, on the ground of all knowledge being facts of consciousness. I think it proper that specialisation should commence with the Honours course for the bachelor's degree, and the bachelor's degree, according to the scheme here proposed, would be one for both Arts and Science, and so it may be styled B.A.Sc.

GEDDES, PATRICK.

Many; but I can here only refer to my answers to questions 6 and 7, though these are but single instances. As the current scientific, philosophical, and pedagogic revolution advances—from the mechanical and analytic view of knowledge as an unorganised encyclopædia of "subjects" to a resynthesis of all these, in terms of the aspects, the relations, and expression of life—a real progress in the co-ordination of studies will be effected; and this with such increased interest, and such economy of effort, to the learner as to make high and varied achievement as common, say, as are "second-class honours" in our schools and universities to-day. For, on present lines, we inhibit and spoil more minds than we educate.

As this question is stated, it encouragingly indicates willingness to consider the details of the needed advance from the present essentially pre-Germanic and sub-Napoleonic type of university which has so long dominated India, towards the sub-Germanic (*i.e.*, encyclopædic) stage which is attained more or less by Cambridge, Chicago, etc., in some measure by all British universities, and Indian ones also.

But at this point I must be pardoned for the criticism, inevitable from the point of view of these answers, that the most essential of questions is not yet clearly enough asked that which would stimulate all concerned to the consideration of the type of university now needed, and even under discussion in various quarters, as definitely post-Germanic, *i.e.*, at once synthetic and integral, civic and regional. I believe this university is already coming towards birth, and in many quarters; and I submit that the degree in which this can be initiated in India for the present generation rests largely upon the scientific and philosophic outlook and insight, the educational faith, courage, and statesmanship which the present Commission can apply and awaken in those to whom they leave their report.

Towards giving this proposition more definiteness, I may be permitted to refer to my report to the Indore Durbar on the proposed university for Central India.

GHOSH, Dr. B. N.—GHOSH, BIMAL CHANDRA—GHOSH, DEVAPRASAD—GHOSH, Rai HARI NATH, Bahadur.

GHOSH, Dr. B. N.

I think in secondary schools we ought to introduce elementary scientific education through the medium of the vernacular.

GHOSH, BIMAL CHANDRA.

It is important to introduce:—

(*a*) In secondary schools—physics, chemistry, natural history, sanitary science, and physiology, of the Cambridge junior local standard.

(*b*) In colleges—physiology, biology, hygiene, sanitary science, experimental psychology, anatomy, and anthropology.

(*c*) In the post-graduate course—anatomy, human and comparative, anthropology, agricultural botany, and chemistry.

(*d*) In medical colleges—anthropology, experimental psychology, psychiatry, bio-chemistry, public health, and dentistry.

Students of medicine should be encouraged in every way to enter for the B.Sc. and M.Sc. courses, and every facility should be given to them to work in botany, zoology, physiology, anatomy, physics, and chemistry for the B.Sc. degree.

GHOSH, DEVAPRASAD.

The first thing that strikes me about the curriculum is that a drastic change is necessary in the matriculation course. English, Bengali, Sanskrit or Persian, history (Indian and British), geography, elements of physiography, and physical science should be made compulsory. The point is that the average matriculate should have some knowledge of most of the useful topics; specialisation should not begin then. The deplorable results that have followed the abolition of history and geography as compulsory subjects do not require much expatiation.

If physical science is taught in the matriculation class specialisation may begin in the intermediate class; but if the matriculation course does not include science then there ought to be compulsory elementary science teaching in the intermediate class.

Real specialisation should, therefore, begin in the B.A. class. Those who take up science for the B.Sc. examination may also be encouraged to take up one of the modern European languages, *e.g.*, French, German, or Italian, which offers immense help to scientific research in these days.

As regards subjects for the M.A. course I think our list of subjects is fairly complete. I might offer one or two suggestions. The general principles of biology, together with biometry (and anthropometry as a particular case), may conveniently be taken up as a subject for the M.A. examination.

In mathematics elliptic functions might be introduced as a particular subject; and the general theory of Abelian functions may be taken up as one of the special papers; the logical foundations of mathematics, developed by Peano, Pieri, Frege, Russell, Whitehead, and others, may be taken up.

As I am a mathematics man I offer these suggestions.

GHOSH, Rai HARI NATH, Bahadur.

Elocution is best introduced in colleges.

GHOSH, Dr. JAJNESWAR—GHOSH, JNANCHANDRA—GHOSH, JNANENDRA CHANDRA—GHOSH, Rai Bahadur NISI KANTA—GILCHRIST, R. N.—GOSWAMI, BHAGABAT KUMAR, Sastri.

GHOSH, Dr. JAJNESWAR.

A simple course of instruction in hygiene may, with advantage, be prescribed for boys in secondary schools. But the lessons, instead of being too formal and theoretical, should have some relation to the conditions under which they live, so that they may be able in later life to appreciate the need of sanitary improvement and to struggle successfully against disease.

The present curriculum of secondary schools has been designed with a view to prepare students for a collegiate education. But a broad general culture is more important for the majority of the boys than a specialised training for advanced work in future. Moreover, if the scheme of a preparatory course set forth elsewhere in these notes is adopted a preliminary training before matriculation will not be needed for a university career. I would, therefore, recommend the inclusion of geography, history, and a physical science among the compulsory subjects for the matriculation examination.

GHOSH, JNANCHANDRA.

There are some branches of learning which are not taught in our secondary schools and the University and its colleges which it is of importance to introduce.

(*a*) Provision should be made for science teaching in our schools.

(*b*) Provision should be made for the study of biological sciences in the University and the colleges.

GHOSH, JNANENDRA CHANDRA.

I would suggest the foundation of a chair for the study of the Bengali language and another for the comparative study of the vernaculars of India. The Ramtanu Lahiri Research Fellowship for Bengali may be developed into a professorship.

GHOSH, Rai Bahadur NISI KANTA.

In secondary schools elementary books of science should be introduced; geography, general and physical, should be made compulsory in the matriculation. Reading of English and Indian history should be made compulsory. Elementary lessons in hygiene should also be introduced.

In arts the study of English and Indian history and logic should also be made compulsory.

GILCHRIST, R. N.

More attention should be given to the study of classics (Latin and Greek) and modern languages. The university courses provide for these subjects; but there is little or no teaching provided. As funds permit I strongly advocate the introduction of classical and modern languages teaching in both schools and colleges.

GOSWAMI, BHAGABAT KUMAR, Sastri.

Elementary agricultural, commercial, and industrial education should be introduced.

GOSWAMY, HARIDAS—GUHA, JITES CHANDRA—GUHA, RAJANIKANTA—GUPTA, SATYENDRANATH—HALDAR, UMES CHANDRA.

GOSWAMY, HARIDAS.

The existing curricula of schools do not adequately recognise the fact that the child is a supremely active being who grows best by being allowed to work. *Manual training* should, therefore, find a place in the school curriculum. All boys should also study *science* in school.

Even in the later years of school-life and in the University, where specialisation has been advocated, education should be largely humanistic, and there should be a combination of science and letters, the difference being only in the method of the treatment of each, according as the one or the other is the predominant study of the pupil; for the aim, in the case of a predominant study, is skilled execution, whereas, in the other case, it is appreciation—*vide* my answer to question 11.

Every secondary school should, therefore, provide two courses in science in the higher forms—one a general course for all pupils, dealing, in lecture demonstrations, with the principal facts and phenomena of science and their application to industry, science being presented as the romantic story of this wonderful world, the descriptive accounts of discovery in a wide field of physical and biological science, so as to arouse the enthusiasm and reverence of the pupil—while for boys who are being trained for some scientific profession a systematic course, with laboratory work, should be provided.

GUHA, JITES CHANDRA.

I suggest that the subject of agriculture ought to be at once taken up by our University, though the Pusa and Sabour colleges are doing some good work in that direction. If agriculture and technology can be taught to our students they will not be required to incur heavy expenses to go abroad for learning those sciences.

GUHA, RAJANIKANTA.

The following subjects should be made compulsory in secondary schools in Bengal:—

(*a*) History of India and England.
(*b*) The fundamental principles of physical science.
(*c*) Geography, general and physical.

In the collegiate course it is desirable that every student should read one of the classical languages of the country.

Under the new regulations history is an optional subject from the matriculation upwards; it is now, therefore, possible for a student "to run a most distinguished career and finish his education in utter ignorance of the history of his own country and of that of the land of its rulers." This is not as it should be.

GUPTA, SATYENDRANATH.

Elementary physics, hygiene, and drawing should form subjects of the matriculation examination.

HALDAR, UMES CHANDRA.

Elementary science (physics and chemistry) ought to be included in the curricula of secondary schools. Besides developing their powers of observation and reasoning a knowledge of science will be of great help to students when they take up the professions of medicine, engineering, commerce, and agriculture.

HAQ, Khan Sahib Maulvi Kazi ZAHIRAL—HAZRA, JOGENDRA NATH—HUQ, The Hon'ble Maulvi A. K. FUZLUL—HUQUE, M. AZIZUL—HUQUE, Kazi IMDADUL.

HAQ, Khan Sahib Maulvi Kazi ZAHIRAL.

Yes; agriculture.

HAZRA, JOGENDRA NATH.

Yes; agriculture, commercial science, and practical chemistry should be introduced into the curricula of the University of Calcutta.

The history of India and England in broad outline, and geography should be compulsory subjects in the matriculation. These may be taught in the vernacular.

In secondary schools provision should be made for teaching the history of India and England, and hygiene and sanitation should also be taught.

If these subjects be taught in the vernacular and made compulsory for the matriculation and one of the additional subjects be taken off the burden will be lighter.

It is very inconvenient to study the literature of a country without knowing its history.

Under the present arrangements a student without studying the history of England may pass the M.A. degree examination in English literature.

HUQ, The Hon'ble Maulvi A. K. FUZLUL.

In all these branches of learning instruction might be given from the very lowest men for the following specific careers in life :—

(*a*) The study of a medical science according to the *unani* system.
(*b*) The above according to the *ayurvedic* system.
(*c*) Agriculture.

In all these branches of learning instruction might be given from the very lowest rungs of the ladder beginning with the primary school.

HUQUE, M. AZIZUL.

The following subjects should be introduced in University courses :—

Agriculture, commerce and industry, business, metallurgy, art, architecture, electrical engineering, textorial studies, antiquity, teaching, mineralogy, oriental studies of Hinduism and Islam, journalism, banking, tanning, indigenous system of treatment and medicine, *viz.*, *unani* and *ayurvedic*.

HUQUE, Kazi IMDADUL.

In secondary schools in Bengal science is not taught at all. Even such important subjects as history and geography are merely optional at the matriculation, and so, much neglected in the preparatory classes. In some of the lower classes of Western Bengal a little science is taught through the medium of text-books, which the boys learn by heart. It is not scientifically taught. In the secondary stage it seems desirable to teach such subjects as elementary biology, physiology, hygiene, sanitation, and physiography (somewhat thoroughly), which do not involve much cost. Physics and chemistry may be taken up by such schools as are able to bear the cost. History (including a bare outline of the history of the world, and a brief history of Islam) and geography ought to be compulsorily taught in every school. Music also ought to be included in the curriculum. So also drawing, sketching, and water-colour painting are subjects which require more attention. They are now the most indifferently taught subjects in schools.

HUQUE, Kazi IMDADUL—*contd.*—HUSAIN, The Hon'ble Mian MUHAMMAD FAZLI, Khan Bahadur—HYDARI, M. A. N.—IBRAHIM, Khan Bahadur MUHAMMAD—IMAM, The Hon'ble Justice Sir ALI—Indian Association, Calcutta.

In colleges it is necessary to provide for the teaching of theological subjects. The philosophy of Islam and of ancient India ought to be included in the curricula of Hindu and Islamic theology. Christian theology may be provided for where necessary.

A detailed and critical history of Islam is another subject which ought to be taught in every college.

Further, in secondary schools, provision should be made for the teaching of Urdu. It is very necessary that this language should be allowed to be taken up as a second language, in the place of Arabic or Persian, by those students whose vernacular is not Urdu.

HUSAIN, The Hon'ble Mian Muhammad FAZLI, Khan Bahadur.

Certainly; the vernacular should be made an alternative with a classical language in the matriculation, and even in the intermediate. For the degree examination, in the languages group, I should keep the vernacular as an optional.

HYDARI, M. A. N.

Agriculture, commerce, public administration, and sociology, according to the curriculum in some of the new English universities, would be very useful additions to the Indian university courses.

IBRAHIM, Khan Bahadur MUHAMMAD.

The study of Islamic history should be introduced in secondary schools, the study of Islamic philosophy and history for B.A. students of philosophy and history, and Islamic philosophy as an optional group for M.A. students of philosophy.

IMAM, The Hon'ble Justice Sir ALI.

Technological education seems to be most wanting in the curricula of our schools and universities. The time has arrived when this could be successfully taken up.

There are various other departments of learning which the universities could take up, for which our country affords special scope, such as anthropology, social and physical, sociology, archæology, etc. But, however interesting and important these and similar other branches of learning may be for the general advancement of human knowledge, and however much the vast variety of the races that inhabit this great country may afford scope for such studies, the need of the moment must prevail over the less useful studies. It is not that I underrate the value of these studies, nor do I underrate the fact that these studies, if not now taken up, may lose for the world an opportunity which may not come again, yet to me the financial and economical development of our people and the resources of our country seem to be at he present moment of the greatest importance, and I would be willing to sacrifice what may be called the higher interests for the need of the moment.

Indian Association, Calcutta.

History of Indian culture.

Anthropology, including sociology, ethnology, and ethnography.

This answer should be read along with the answer to question 7.

IRFAN, Maulvi MOHAMMAD—IRONS, Miss M.V.—IRWIN, The Hon'ble Mr. H. R. A.—ISMAIL, Khan Bahadur MOHAMMAD—JOHNSTON, Mrs. A. B.—JONES, T. CUTHBERTSON,

IRFAN, Maulvi MOHAMMAD.

It is very important to introduce religious instruction in secondary schools and in colleges as well. The want of such instruction has produced baneful effects on the character of our students.

IRONS, Miss M. V.

A course of domestic economy should be compulsory in all girls' schools of the province. A general knowledge of hygiene is necessary for students. Books such as would help to develope the character of students should form part of the libraries; moral culture must go hand in hand with intellectual culture.

IRWIN, The Hon'ble Mr. H. R. A.

I consider it of great importance that the teaching of hygiene and sanitation should be made compulsory in all State-aided schools and should constitute one of the subjects for the matriculation examination of the University.

ISMAIL, Khan Bahadur MOHAMMAD.

Muhammadans are a very important section of the population in India—so the history of Islamic civilisation ought to be taught in every Indian university, particularly in the Calcutta University, which caters for a people 52 per cent. of which is Muhammadans.

Religious and moral education should be provided in all universities.

JOHNSTON, Mrs. A. B.

It seems extraordinary that schools should be able to call themselves high schools where:—

Drawing, Nature study, Science, Manual training, Geography } are not taught.

In most girls' schools very little domestic science, needlework, and other home arts are taught. There is a movement on foot in Calcutta to establish separate middle-class schools where domestic subjects will be taught. This is a move in the wrong direction. All schools and colleges should provide for the teaching of these subjects, otherwise girls will think domestic subjects are only for the less wealthy members of society, and not for pupils of high schools and colleges. If this movement is encouraged then it will be impossible to check the evil that is growing, namely, a contempt for the home and things domestic as the outward and visible sign of an educated woman!

JONES, T. CUTHBERTSON.

Yes; I would suggest economic geography, and a more intensive study of Indian economics. In the technical schools attached to the University, and to the colleges for students working for post-graduate degrees, I would provide instruction in agricultural, mineral, and organic chemistry (*vide* my answer to question 7).

JONES, T. CUTHBERTSON—*contd.*—KARIM, Maulvi ABDUL—KHAN, ABUL HASHEM—KUNDU, Rai BEJOY NARAYAN, Bahadur—LAHIRY, RANOJIT CHANDRA—LUCAS, Rev. E. D.

I have not had access to the latest Calcutta University Calendars, but I do not find in those I have that botany is taught much or zoology at all in the colleges affiliated to the University.

In schools I think physics, chemistry, and biology should be introduced as optional subjects for the matriculation. Schools undertaking these subjects should, of course, be equipped with really good laboratories, and students should be required to make the necessary experiments themselves daily and to produce their laboratory notebooks, with diagrams of the work done, for inspection by the University examiners. Schools should also be equipped with small carpentering and fitting shops, and prizes should be given to encourage mechanical ingenuity and skill and training in handling tools and apparatus.

KARIM, Maulvi ABDUL.

Islamic studies should be included in the curricula of the Calcutta University. The history of Islam should be separately taught as a subject of examination. Boys should have the option of taking up either Islamic history or the history of Greece and Rome or the history of India or England.

As in the case of Sanskrit the different branches of Arabic learning should form separate subjects for higher examinations.

KHAN, ABUL HASHEM.

It will be useful to the country, and to the solution of its problems, to introduce into the University Islamic learning and to open their doors to all classes of students without any restriction.

KUNDU, Rai BEJOY NARAYAN, Bahadur.

The training in the zamindari business should be made optional for matriculation students, or it may be made a part of agricultural education. As there is in Bengal a great demand for men having a fair knowledge of zamindari affairs it will be easy for those students who would not wish to continue their studies after the matriculation examination to get some job somewhere in the zamindari line or in Government *khas mahals*.

LAHIRY, RANOJIT CHANDRA.

Practical lessons on improved methods of agriculture may be introduced in secondary schools.

LUCAS, Rev. E. D.

All schools should require some practical training from their pupils. It might be manual training, sloyd work, gardening, or domestic training as the peculiar circumstances seem to indicate. But no student should leave a course with nothing but unadulterated book-knowledge.

MACKENZIE, A. H.—MAHALANOBIS, PRASANTA CHANDRA.

MACKENZIE, A. H.

Geography is a branch of learning which has not yet found a place in the curriculum of any Indian university. The claims of geography to be recognised as a university subject are mainly two :—

(*a*) The intellectual value of the higher study of geography is considerable. On this point the opinion of Sir A. Geikie, the eminent geologist, may be quoted :—"The forms of the land and their origin, the climates of the globe, the distribution of plants and animals, and the causes that have regulated it, the influence of the variations of climate, soil, and topography upon the history of man, the reaction of man upon nature—these, and a thousand other connected problems, form the subject of the highest kind of geography. Such a theme, invested with so much deep human interest, possesses a peculiar value in education". This view was expressed about thirty years ago at a time when the Council of the Royal Geographical Society was urging the Universities of Oxford and Cambridge to establish geographical professorships. In its memorial to the Universities the Council said :—"Scientific geography does not confine itself to such a description of separate localities as may be found in gazetteers. Having collected similar cases it proceeds to group them together. It studies antecedent conditions, and concerns itself with the action of concurrent phenomena upon one another in the same locality, showing why they tend to stability and to give to each country its characteristic aspect. Thus, the geographical distribution of plants and animals, and the light it throws on the early configuration of the surface of the earth, is one of the very many problems with which scientific geographers are accustomed to deal. Another of the problems is concerned with the reciprocal influence of man and his surroundings; showing, on the one hand, the influence of external nature on race, commercial development, and sociology, and, on the other, the influence of man on nature, in forest destruction, cultivation of the soil, introduction of new plants and domestic animals, extirpation of useless vegetation, and the like. This mutual relation of the objects of the different sciences is the subject of a science itself, so that scientific geography may be defined as the study of local correlations".

There can be no question that the subject as thus defined should have a place amongst university studies, and at the time the universities of England were being converted to this view there were already established twelve chairs of geography in Germany, seven in France, and twelve in Italy.

(*b*) Of all subjects in the curriculum of secondary schools geography is the worst taught. The teachers have not the indispensable equipment for teaching—a knowledge of the subject. The remark once made of teachers of geography in England is true to-day of teachers of geography in India :—"The only difference between the teacher and the taught consists in the fact that he has the book open and they have not". In the great majority of our schools the subject is, educationally, worthless; it is cram of the worst type—the memorising of unintelligible names. In England the university professors of geography have inspired, and their students have carried out, reforms which have completely revolutionised the teaching of the subject. In India also we must look to the universities to rescue geography from being badly taught in the schools.

MAHALANOBIS, PRASANTA CHANDRA.

Provision should immediately be made for the study of *zoology* and *general biology*.

A chair for the study of the science of *statistics* has become urgently necessary. The University should have a department for the study of the rich and diverse material which Bengal offers.

MAHALANOBIS, PRASANTA CHANDRA—*contd.*—MAHASAI, KUMAR KSHITINDRADEB Rai—MAHTAB, The Hon'ble Sir BIJAY CHAND—MAITRA, AKSHAY KUMAR.

Sociology, comparative anthropology, and *comparative philology* of the allied vernaculars are subjects in which the Calcutta University should certainly specialise. It is doubtful whether there is any other country in the whole world, other than Bengal, which would offer a more fruitful field for studies in these subjects.

The Bengali mind is highly synthetic in character, and a chair of *philosophy of the sciences* should be peculiarly suited to our intellect.

The study of *comparative religion* should also be a special feature in Bengal, the home of Raja Rammohan Roy, the great pioneer in this subject.

Adequate provision is also necessary for the study of our *folk-art* as developed in our industries and handicrafts.

Native *music* requires attention and a chair for its scientific study should be created.

In addition, the many *technological* subjects (*e.g.*, mining, agriculture, commerce, etc.) are not at all represented, and it is necessary to make provision for these.

Indigenous systems of *medical* treatment should also receive some attention, and the University should make provision for their study.

The subjects of *education* should also receive attention. The theoretical and practical investigations of the conditions for the proper conduct of examinations is a subject which demands urgent attention. There is no other university in the world with a larger number of candidates, and it is quite fitting that the Calcutta University (with its 32,000 candidates) should specialise in such investigations.

MAHASAI, KUMAR KSHITINDRADEB Rai.

Elementary science and hygiene should be taught in schools. There ought to be some arrangements for teaching music, to those who may desire it, in school and college boarding-houses. Drawing seems to be neglected in schools now.

MAHTAB, The Hon'ble Sir BIJAY CHAND.

As far as I know the University has not much to do at present with agriculture, trade, and general manufactures. Lessons on these subjects may be given in colleges specially established for these purposes, but these should not be mixed up with the existing schools and colleges of general education; and the University should recognise, affiliate, and help institutions specially established for these purposes, as suggested in my answer to question 6.

MAITRA, AKSHAY KUMAR.

Agriculture, commerce, antiquities, ethnology, and technology are not now properly represented in the curricula of, and are not taught in, the schools or colleges in Bengal. They should be introduced and properly taught in local areas possessing special facilities for the same. It may be noted in this connection that the teaching of Indian history, antiquities, and ethnology requires a high degree of proficiency in Indian classics, and that text-books alone cannot enable students to acquire all up-to-date knowledge. Training in these subjects should, therefore, be given by necessary collaboration of research societies and by actual association with localities in which research work is being, or may be, carried on. Scholars of well-established standing in these subjects should be selected to compile text books for the guidance of these studies. Such text-books should form part of university publications. An organised effort to produce such text-books, with adequate safeguards, may be expected to give us good results after five years' preparation, under the guidance and direction of a special board of studies, the members of which should be adequately remunerated for their services. University lecturers in these subjects should be selected from among those persons only who have given satis-

MAITRA, AKSHAY KUMAR—*contd.*—MAJUMDAR, PANCHANAN—MAJUMDAR, RAMESH CHANDRA—MAJUMDER, NARENDRAKUMAR.

factory proofs of useful research work, and they should be attached to well-organised research societies so that they would be able to import fresh knowledge into their lectures in the University. The teaching should aim at rousing an intellectual curiosity in students so as to enable them to pursue research work in life if they should find opportunities. While a general knowledge of Indian history and antiquities should be considered an essential equipment for all Indian students a special knowledge of Bengal should be acquired by all Bengali students.

MAJUMDAR, PANCHANAN.

Yes; there are; *e.g.*, ayurveda and books on religion or divinity.

MAJUMDAR, RAMESH CHANDRA.

Elements of physical science and hygiene should be taught in schools.

Traditional morality, or code of ethics, of each particular religious sect should be a subject of study in the college classes.

MAJUMDER, NARENDRAKUMAR.

The following branches are not represented :—

(*a*) Art, including music.
(*b*) Science of education.
(*c*) Theology.
(*d*) Agriculture.
(*e*) Civics and eugenics.
(*f*) Vocational and commercial education.
(*g*) Training in " first aid."

These subjects should be introduced in the curricula of the University.

Training in " first aid " should be imparted in the higher classes of high English schools.

Elementary training in " agriculture " may be commenced from secondary schools.

Elementary principles of banking and insurance, economics, natural sciences, and civics should be taught before the student comes to the University; advanced principles may be taught in the degree course (pass), and more advanced principles in the degree course (honours) and the M.A. and M.Sc. courses.

As regards " insurance " every student ought to learn from the school that *insurance* is a social service institution, the by-product of which is the building up of character, which implies self-respect, unselfishnes, and a *desire* to serve (where by *desire* we mean an irresistible controlling force expressing itself in action to the point of sacrifice). Students must learn from the very beginning that insurance is an *unconscious* combination among the members of a community to minister to each other's wants.

After the previous examination there should be a two-years' course for the degree examination (pass), and after that a one-year's course for the same degree examination (honours) only in the subject which the student wants to take up in the M.A. and M.Sc. courses and for higher study. In these stages English may be an alternative medium of education or examination.

After the previous examination students may take up medicine, and after the (pass) degree examination they may take up engineering.

Under this scheme a student, at whatever stage he may leave the University, will not be at a sad disadvantage, as at present, as regards his knowledge of English or his knowledge of the world.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN—MAZUMDAR, C. H.—MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur—MITRA, RAM CHARAN—MITTER, The Hon'ble Mr. PROVASH CHUNDER—MOHAMMAD, Dr. WALI.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN.

There ought to be a college of polytechnics attached to the University where regular courses of study in electricity, magnetism, chemistry, steam-engines, and other applied sciences may be pursued not merely in theory, but in practice. The necessity for such a college has long been urged by the public and, in the absence of such an institution, the study of science in the existing colleges has been reduced to mere theories without any practical utility.

I have already said that commerce and industry should also find a place in the curricula. In secondary, as also in primary, schools there ought to be given lessons in agriculture, simple handicrafts, and other subjects which may be useful to the artisan classes. Rules of sanitation and hygiene should be taught systematically throughout secondary schools.

MAZUMDAR, C. H.

Drawing, sanitary science, and compulsory physical training may be introduced in secondary schools, moral training being common to both schools and colleges.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

Pottery, botany, zoology, physiology, and principles of hygiene are subjects which should be taught on a small scale in secondary schools.

MITRA, RAM CHARAN.

I think agriculture may be taught usefully in schools, as in the scheme of the Dacca University, and geology taught in colleges.

The University, I understand, has already approached Government to include agriculture as one of the subjects of study.

MITTER, The Hon'ble Mr. PROVASH CHUNDER.

I have partially answered this question in my general memorandum, and in my answer to question 6. In the curricula of secondary schools I should like to have a very elementary knowledge of botany or chemistry or physical science as optional subjects.

Apart from what I have indicated in my general memorandum, and in my answer to question 6, I would like to lay special stress on applied chemistry, pharmacy, and zoology as subjects for colleges. A good theoretical knowledge of applied chemistry and pharmacy will be very helpful to students who ultimately take up the higher practical side of these studies. Zoology is a subject of vast importance to India, and is a subject which has been sadly neglected. For example, the study of zoology is of very great importance to scientific researches in agriculture, sericulture, and pisciculture —all subjects of considerable importance to Bengal and to India.

MOHAMMAD, Dr. WALI.

It is regrettable to find that there is practically no science teaching whatever in schools in Bengal. One of the optional subjects for the matriculation examination is mechanics, but very few candidates offer this subject. Manual training is a subject almost unknown. It is a pity that the advantages of teaching science and scientific methods are

MOHAMMAD, Dr. WALI—*contd.*—MUKERJEE, ADHAR CHANDRA—MUKERJEE, Dr. ADITYANATH—MUKERJEE, BIJOY GOPAL—MUKERJEE, RADHAKAMAL.

not fully appreciated. I have often acted as an examiner in science for the school-leaving certificate examination of the United Provinces and I am convinced of the beneficial results the study of science and the accompanying practical work in the laboratory have on young boys in developing their powers of observation, in teaching them method and system, in inculcating habits of accurate thought and accurate expression, and in stimulating their imagination.

MUKERJEE, ADHAR CHANDRA.

Provision should be made for teaching physics and chemistry in the school, and biological subjects should be taught in the college.

MUKERJEE, Dr. ADITYANATH.

Subjects like drawing, music, hygiene, etc., may be included in the University curriculum for women students only. [Kindly see my reply to question 23.]

As Bengal is an agricultural country agriculture should find a place in the University curriculum.

But, here, we must be careful not to confound the functions of a university with those of a polytechnic institute.

MUKERJEE, BIJOY GOPAL.

Provision should be made for the teaching of agriculture and commercial science.

MUKERJEE, RADHAKAMAL.

This is partly covered by my answer to question 6. The programme in secondary schools should include :—

(*a*) History and civics. Local history should receive special attention.
(*b*) Art (pictorial and plastic, constructive, and music).
(*c*) Natural science, especially those phases which direct the thoughts towards the needs of the home and the particular economic environment.
(*d*) Manual arts and domestic arts.
(*e*) Physical education, including physical training and athletics.
(*f*) Vocational guidance. Courses in agriculture and crafts should be offered to give insight and develope interest in these, and to combat the contempt for the field and the workshop which the existing system maintains and perpetuates.

Most of the above are not represented in the curricula of secondary schools and the remainder of them often not actually taught in them.

In the colleges it is important to introduce :—

(i) Agriculture.
(ii) Vocational education, which will include architecture, engineering, textile industries, and handicrafts.
(iii) Art (plastic and constructive, and music).
(iv) Civics and eugenics.
(v) The science of education.
(vi) Commercial science.
(vii) Theology and religious ministration.
(viii) Physical education, hygiene, and sanitation.

MUKERJI, SATISH CHANDRA—MUKHERJEE, B.—MUKHERJI, PANCHANANDAS.

MUKERJI, SATISH CHANDRA.

Subjects to be introduced are agriculture, technology, commerce, administration, journalism, and theology.

It is to be noted that Indian journalism suffers from want of men specially trained for it, with a comprehensive knowledge of politics, economics, history, and sociology. Theology also should not be neglected as it is at present for if the priests of the country, who still wield considerable influence on the masses, be properly educated in the modern science of sociology, along with ancient religion and philosophy, many important social reforms will become possible on a large scale.

MUKHERJEE, B.

I would like to have a short course of economics, introduced in the I.A. course. In the matriculation course there is a paper on the progress of India under British rule which practically deals with the social, political, and economic growth of India in an elementary way. There is also the subject of the present administration of India which practically deals with an elementary course in Indian politics. In the B.A. course we have a full syllabus on economics, politics, and Indian economics. Between the two, *viz.*, the matriculation and the B.A. courses, there is nothing to connect the economic and political studies. A short course in economics and politics in the I.A. to stand as a connecting link between the two would, I think, be useful.

MUKHERJI, PANCHANANDAS.

The University should take immediate steps to promote the teaching of agriculture, technology, and commerce, notwithstanding any difficulties in the way. There are, no doubt, some institutions doing useful work in these departments of study, but their courses of study do not lead up to any university degree. They have not proved very attractive to students: that may be because they are unconnected with the University and cannot confer any degrees or other university distinctions.

Besides the general attraction which they have for young minds, not in India alone, degrees and other university distinctions are specially needed in this country to overcome the long-existing prejudice against industrial, and even commercial, pursuits entertained by the higher castes, notwithstanding the relaxation of the caste system, notwithstanding poverty, and notwithstanding the overcrowding of the avenues to employment in the services and the professions.

What has been said above makes it abundantly clear that it is not only eminently desirable, but also imperatively necessary, that this University should no longer confine its attention to literature and science but should also take in hand the teaching of applied science and industrial arts, including agriculture, technology, and commerce, so as to enable our students "to hold their own in industries and agriculture, and all the vocations in life".

I would strongly recommend the inclusion of economics and administration in the intermediate curricula. Our B.A. students find it very difficult to comprehend important economic principles and administrative facts because they were given no elementary knowledge of the subjects in the intermediate course. If they had had an elementary training in those subjects there would be a consistent continuity in their studies, and there would be a more intelligent, easy, and sure grasp of those subjects in the course of their B.A. studies. There is no reason why economics should be specially treated by being relegated to the senior curricula only. Like philosophy no B.A. student should be allowed to take up economics unless that was his subject also in the I.A. examination.

Murarichand College, Sylhet—NAG, P. N.—NAIK, K. G.—NANDI, MATHURA KANTA—NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA—NEOGI, Dr. P.

Murarichand College, Sylhet.

No instruction is at present given in lessons on personal hygiene in any of the university or school classes.

NAG, P. N.

Some nature study subjects, as botany, and zoology, should be included in the curriculum of secondary schools in Bengal. Some elementary knowledge of physics is also desirable at the matriculation stage. This subject was included in the course under the old regulations.

NAIK, K. G.

The following subjects should find a place in the University curriculum :—

(*a*) Domestic science, comprising all the domestic arts as taught at the Drexel Institute, Philadelphia, or at Illinois.
(*b*) Architecture.
(*c*) Sculpture and painting.
(*d*) Music.

NANDI, MATHURA KANTA.

History, geography, and drawing should be placed among compulsory subjects. In compulsory mathematics the standard may be raised a little. Elementary science and hygiene should be included in the curriculum for the matriculation examination. Training in handicrafts or gardening should receive attention in the lower classes.

NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA.

Courses in agriculture and handicrafts should be part of the curricula of the secondary schools of Bengal. Physical training, hygiene, and sanitation, as well as art and music, should also come in. In the University and in colleges agriculture, technology, and commercial science should be introduced, and the subjects should be adapted to the specific industrial needs and opportunities of the college district, *e.g.*, sericulture and the silk industry should be introduced in the Krishnath College, Berhampur.

NEOGI, Dr. P.

I have already pointed out that *technology*, *commerce*, and *agriculture* are not taught in the University. I have discussed schemes for their study whilst answering question 7.

Astronomy is taught as a part of mathematics in the B. Sc. and M. Sc. courses. But, unfortunately, neither in the B. Sc. nor in the M. Sc. examination is astronomy taught experimentally. It is needless to point out that *astronomy is as much an experimental science as physics, chemistry, botany, or geology and, therefore, should be taught as a separate science subject both theoretically and practically.* I am myself a graduate in astronomy, *i.e.*, I read Parker's "Astronomy" (along with statics, dynamics, and hydrostatics,-which formed the B.A. mathematics course), and committed certain definitions and processes to memory. We never saw a telescope or the heavenly bodies,

NEOGI, Dr. P.—*contd.*—North Bengal Zamindars' Association, Rangpur—PAL, The Hon'ble Rai RADHA CHARAN, Bahadur—People's Association, Dacca.

such as Venus or Jupiter, except on the black-board. I would respectfully urge that this antiquated, and wholly useless, "blackboard-and-chalk" method of teaching astronomy be done away with. I would like to submit that astronomy should be taught as a separate science subject like physics, chemistry, etc., in the B.Sc. and M.Sc. examinations, and that theoretical and practical examinations in this subject be instituted. Further, mathematics should be a compulsory subject for those who take up astronomy in the B. Sc. examination. So far as the M. Sc. course is concerned certain portions of mathematics which are regarded necessary for the theoretical study of astronomy should be included in it.

Regarding the question of *astronomical observatories*, which would be necessary for the practical study of the subject, I may point out that the Presidency College and the St. Xavier's College in Calcutta already possess small observatories which may immediately be expanded for affiliation in astronomy. It is to be noted that before the introduction of the new regulations of the Calcutta University the same "blackboard-and-chalk" method prevailed in almost all colleges in teaching physics and chemistry and, not seldom, the professor used to hold up his thumb and say "suppose this is a thermometer". Happily, the new regulations have put an end to this method of teaching all other science subjects (including experimental psychology), and I sincerely hope that the University Commission will decree the end of this method so far as astronomy is concerned. India had been famous for astronomical investigations in the past, and had been the birthplace of famous astronomers such as Aryabhatta, Brahmagupta, Barahamihir, and Bhaskaracharya. Ancient observatories of the Hindu and Moghul periods still exist in Benares, Jaipur, Ujjain, and other places, but the present system of teaching astronomy has made the birth of a Aryabhatta or a Bhaskara a moral and material impossibility in India*.

The Government School of Art should be expanded to teach *sculpture*.

North Bengal Zamindars' Association, Rangpur.

Yes; religion, hygiene, agriculture, and zamindari business, including zamindari accounts, book-keeping, etc. This will open up new avenues of employment to students and, to some extent, solve the bread problem for a limited number of men. Ayurvedic, unani, and homœopathic systems of medicine should be taken into the fold of the University.

PAL, The Hon'ble Rai RADHA CHARAN, Bahadur.

I would introduce sanitary science and a general knowledge of the fauna and flora of the country; I would also strongly advocate a general study of the ancient literature of the country in its general aspects, such as the *Ramayana*, the *Mahabharata*, and the *Puranas*.

People's Association, Dacca.

We suggest that a large number of, if not all, teachers in high schools should be adequately trained, and arrangements should be made for their training according to the requirements of the University.

Regarding the medium of teaching, although there is a difference of opinion we are decidedly in favour of using English, and not Bengali, as the medium from class VIII or the last three classes in high schools—and all along after the students pass the matriculation examination. But, at the same time, Bengali should be taught regularly up to the B.A. and B.Sc. examinations, and text-books should be prescribed for the purpose.

* Astronomy is taught in many European and American universities as a science subject. If necessary, details of practical examinations as conducted in those universities may be obtained from the calendars of these universities.

People's Association, Khulna—Ray, Joges Chandra—Ray, Manmathanath—Ray, Raja Pramada Nath—Ray, Rames Chandra—Ray, Sarat Chandra.

People's Association, Khulna.

The study of English and Indian history and geography should be made compulsory in schools. Also it seems desirable to ensure some sort of elementary training in physical science for all students in high schools. Theology should be recognised by the University as a separate branch of learning, so also commerce and applied science.

Ray, Joges Chandra.

In secondary schools in Bengal all useful branches are more or less taught. But many are dropped in the upper forms in which the subjects prescribed for the matriculation are retained. For instance, drawing is neglected, if not given up. So also are geography and hygiene which, to my mind, are the very branches of learning which none can afford to be ignorant of. It is a pity that the modern graduates of the University are lacking in the knowledge of those subjects which can help them to live well. I would include hygiene in the intermediate and geography even in the B.A. courses. It is also time to introduce vocal music in schools.

Ray, Manmathanath.

Vide my answer to questions 6 and 7. The following subjects are not represented in the curricula, but should be introduced :—

(*a*) Science—

(i) In the schools provision should be made for the teaching of physics and chemistry as optional subjects.

(ii) In the higher stages all the biological sciences should be taught.

(iii) Degrees and diplomas should be founded for the ayurvedic or the Hindu science of medicine.

(*b*) Arts—

(i) In the matriculation examination drawing, music, and painting should be introduced as optional subjects.

(ii) Ethnology should be introduced.

Ray, Raja Pramada Nath.

Agriculture and applied science, and also commerce and industry, are not included in the curricula of secondary schools in Bengal. They should be introduced.

Ray, Rames Chandra.

The Ayurvedic system of medicine may be included in the University curricula, and diplomas and degree instituted for it.

Ray, Sarat Chandra.

The elementary principles of agriculture, physics, chemistry, botany, biology, hygiene, and home sanitation should be introduced as subjects of study in schools.

I think that, except agriculture, hygiene, and sanitation, all other subjects are at present taught in the colleges. Those subjects should also be introduced in the curricula.

RAY, SATIS CHANDRA—REYAZUDDIN, Syed Quazi—ROY, HIRA LAL—ROY, MUNINDRANATH.

RAY, SATIS CHANDRA.

I would introduce religious instruction into the school curricula. As we are not bound, in making our suggestions, by any considerations of finance, I may say that we need not anticipate any difficulty in teaching. One Muhammadan and one Hindu teacher in an ordinary school would appear to be adequate. In exceptional cases an additional teacher or two may be required. But I consider religious instruction to be of such vital importance to the character and discipline of our youths that no difficulty, financial or other, should be allowed to stand in the way.

REYAZUDDIN, Syed Quazi.

In medical schools and colleges homœopathy, hakimi, and kaviraji modes of treatment should be taught.

ROY, HIRA LAL.

In secondary schools any two of the following sciences should be taken by students:—

(*a*) Elementary botany (mainly morphology).
(*b*) Elementary physiology (lectures, with the help of models).
(*c*) Elementary physics (with laboratory work).
(*d*) Elementary chemistry (with laboratory work).

And the following should be made compulsory subjects of study:—

(i) Geography.
(ii) Indian history.
(iii) Indian administration.
(iv) History of England as part of Europe.

All these are possible if the University holds examination by "compartments" and in the vernacular.

The University should open the following courses:—

(A) French } Two years' study of one of these should be compulsory.
(B) German }
(C) Astronomy (theoretical and practical).
(D) Agriculture.
(E) Music.
(F) Fine arts.
(G) Architecture.
(H) Administration.

ROY, MUNINDRANATH.

In the curricula of secondary schools a few important subjects should be introduced:—

(*a*) A general knowledge of physical geography should be given, with geography up to the matriculation class, mainly through the teacher's help, based on primers on the subject.

(*b*) Elementary knowledge of chemistry and physics should be given in schools, through the vernacular and by a set of apparatus, which need not be costly (the cost being Rl00 initially).

ROY, MUNINDRANATH—*contd.*—ROY, The Hon'ble Rai SRI NATH, Bahadur—ROY, The Hon'ble Babu SURENDRA NATH—SAHA, MEGHNAD.

(*c*) History should be taught from chapter VII (that is, what is taught from class IV) upwards through books. There should be no books in history in the lower classes and no course set. It is burdening the child's memory unnecessarily.

(*d*) A better substitute for *England's Work in India* prescribed for the matriculation should be introduced. That book has been crowded with details, and has become a cram book. It does not set forth the great achievements of the English people in a manner truly to interest young readers. It is almost statistical.

The great qualities of head and heart of the English people, the lives of the great English sovereigns and their noble solicitude for India's welfare, the work of the great administrators who come out to India and, above all, the true aspect of the relationship between the English people and the Indians, have not been brought out in that book sufficiently clearly to interest young readers. They do not read the book, but learn the answers to a few questions asked at the matriculation from that book.

(*e*) A primer of English history should be introduced.

(*f*) Drill should be made compulsory up to the matriculation class, and should be taught by teachers trained in military schools, in a proper way. An incentive should be given in this important direction to serve the King's cause when required.

ROY, The Hon'ble Rai SRI NATH, Bahadur.

Manual training (elementary), science, drawing, workshop practice, etc., should be introduced in secondary schools. The histories of England and India should form compulsory subjects in the matriculation examination.

Technological and commercial subjects should be included in the college courses.

ROY, The Hon'ble Babu SURENDRA NATH.

Geography is not at present properly taught in schools and is not one of the compulsory subjects in the examination for matriculation. It ought to be made so.

SAHA, MEGHNAD.

In secondary schools science, history, and geography are entirely neglected. I would like to see these subjects introduced into the curriculum.

I think that up to this time we have taken a rather narrow view of the aims and usefulness of secondary schools. We are accustomed to look upon them merely as "preparatory institutions" whose chief function is to prepare students for admission into the University. We have acted upon the idea that the task of imparting education in various branches of knowledge lies with the colleges, whereas the function of secondary schools is simply "to pump into the minds of students" a working knowledge of English, a little mathematics, a little classical language, and vernacular. In secondary schools there is no place for science, history, and geography.

But I think that we should look upon secondary schools from a changed angle of vision. In none of our existing systems of education does the education of the masses enter seriously into consideration. One must acquire a sufficient knowledge of English before he can enter the precincts of knowledge. By education of the masses I mean such education as will enable them to have a wider outlook on society and the world, and also to follow all social and political movements in an intelligent manner. There are at

present about 700 (seven hundred) high English schools in the Bengal Presidency (*i.e.*, one for 65,000). Though this number is far from satisfactory yet it can be said that they are fairly well-distributed all over the country and are easily accessible to the masses of the population. These schools can easily be used for the cultural education of the people up to the age of sixteen, so that, on leaving the school, the student may carry with him a sufficient stock of knowledge to enable him to become a useful and intelligent citizen of the Empire. I would therefore, recommend that the teaching of history (both Indian and European), geography, elements of physics, chemistry, hygiene, the modern political history of the country, and a little physiology and physical geography should be seriously undertaken in these institutions, besides the vernacular, mathematics, English, and a classical language. If we make the vernacular the medium of instruction in all subjects the course will not be as heavy as some people seem to think. The writer remembers that while he was a student in a middle English school he had to learn, besides history and geography, the elements of botany, physiology, physics, and hygiene from a book written in Bengali. He remembers that he could easily grasp lessons on botany and zoology, because these required little experimentation, while the lessons on physics and physiology, though not very clear, were not altogether Hebrew or Greek to him. He can confidently assert that if lessons on these subjects were given by competent teachers and illustrated by experiments he, as well as his fellow-students, would have been able to follow them as intelligently as any intermediate student.

But the success of this project entirely depends upon whether we make English or the vernacular the medium of instruction. My belief is that the present system is a most unnatural one. The student is asked to unlearn the ways of thinking which come to him most naturally, and asked to think in a tongue, every word of which he must pick up and retain in his memory with an effort. Instead of allowing him sufficient time to familiarise himself with the language we prescribe a time-limit within which he must attain as much fluency in the language as the average English boy of thirteen or fourteen. The result is that he has recourse to a process of perpetual memorising and translation—a habit which he can never shake off in after life.

If science subjects and other cultural subjects be introduced in the matriculation course, and taught by means of the vernacular, our literature will be much richer in books relating to these subjects. Real learning will be diffused among the masses to a larger extent than has hitherto been the case. In England and all free countries of the world education, like sunshine, can reach all ranks of people, and make possible the appearance of such rare geniuses as Faraday, Darwin, Count Okuma, who achieved greatness without being learned in a foreign tongue. But, in our country, education reaches the people through a narrow slit—a certain minimum of efficiency in the use of English. The atmosphere of education here is morally unfit for the growth of geniuses of the type of Faraday or Darwin.

SAHAY, Rai Bahadur BHAGVATI.

The only addition to the curriculum of secondary schools that I would recommend is the study of an elementary historical reader dealing with ancient history and the history of Greece and Rome. I would make the history paper compulsory. It is impossible to understand English literature without some knowledge of the history of Greece and Rome.

SANYAL, NISIKANTA.

Geography is not properly taught. The vernaculars are neglected. Also languages. Geography and more languages should be taught in secondary schools.

SARKAR, GOPAL CHANDRA—SARKAR, KALIPADA—SEAL, Dr. BRAJENDRANATH.

SARKAR, GOPAL CHANDRA.

The following should be compulsory subjects for the matriculation examination:—

(*a*) English.
(*b*) Mathematics.
(*c*) Vernacular literature.
(*d*) History and geography.
(*e*) Elementary science, physics, and chemistry.
(*f*) Any one of the following optional subjects:—
  (i) Drawing.
  (ii) Physiology and hygiene.
  (iii) Elementary mechanics.
  (iv) A classical language.

SARKAR, KALIPADA.

Agriculture, commerce, and industry.

SEAL, Dr. BRAJENDRANATH.

(*a*) Not represented in the curricula of secondary schools and not actually taught:—

(i) The elements of physics and chemistry: these should be compulsory (and an examination subject).
  (Also object-lessons, everyday science, sense-training, drawing, manual training, or sloyd may be mentioned in this connection as essential to a modern school training in its entire course—not necessarily as examination subjects.)

(ii) The elements of the history of England: this should also be compulsory (and an examination subject).

(iii) Lessons in hygiene, lessons on the history of civilisation and culture (including inventions and institutions), and lessons on the story of man and of the earth and civics should be given regularly, but there need be no examination.
  Geography and the history of India are optional subjects in the matriculation curriculum: they should be made compulsory.
  The relation between examination curriculum and teaching in our schools is expressed by the proposition *All* curriculum subjects are *all* taught subjects. This (double) universal is our major premise.

(iv) Technical department of school education.

(*b*) Not represented in the curricula of the University, and not actually taught in college or university:—

(i) Anthropology, with anthropometry and ethnology.
(ii) The theory of statistics, as applied to sociology (including economics and demography) and to biology (with biometrics).
(iii) Symbolic logic.
(iv) The principles of mathematics (including the logic of mathematics).
(v) Zoology and biology (major subjects in a cultural epoch, which I would sum up in one of its fundamental aspects in a motto—all nature is historical, and all history is natural). The neglect of these subjects in our scheme of general education tends to make our culture archaic and lifeless, a dead culture, in short!
(vi) Several branches of humanistic science, such as the history of civilisation, the philosophy of history, the economic interpretation of history, theories of space, time, matter, energy, and life, folk and race psychology, comparative religion,

the theory of mental and social measurements, Indian civilisation and culture (including archæology), and various branches of Indian philosophy, have been recently included in the proposed schemes for the M.A. and M.Sc. curricula and are, therefore, omitted here. Similarly with the theory of quanta, the new dynamics, the theory of real variables, radiography, stereo-chemistry, etc., which will find a place in the M.Sc. curricula.

(vii) New faculties of agriculture, technology, and commerce.

SEN, ATUL CHANDRA.

So far as secondary schools are concerned it should be pointed out that elementary sciences, including physics, chemistry, physiology, and hygiene, should form part of the curriculum of secondary education. History and geography should be made compulsory and the history of England, which has been omitted from the matriculation history, and geography.

In secondary schools there should be no bifurcation of studies. English, one vernacular, elementary mathematics, elementary science, including physics, chemistry, physiology, hygiene, history, and geography, should be made compulsory.

At the intermediate, or high school, stage a bifurcation of studies may be allowed. There should be two different courses—the arts course and the science course. The arts subjects should include English and vernacular (compulsory), history, a classical language, elementary logic and psychology, mathematics and economy (optional).

The science course should comprise English, vernacular, mathematics (compulsory), physics, chemistry, zoology, botany, physiology and hygiene (optional).

With regard to the B.A. and B.Sc. courses I have no suggestions to offer.

SEN, BIPINBEHARI.

Though Bengal is essentially an agricultural country the need for non-agricultural occupations is keenly felt. The amount of scientific education received by the graduates of the University is more theoretical than of much practical utility. It is, therefore, desirable that the University should undertake the work of organising a more useful system of scientific education so as to enable our educated youths to develop the resources of the province and open for themselves new industrial walks of life. A good deal of the brain-power of the province is now wasted for want of opportunity and encouragement in the study of applied science as everyone is not fit for a literary education. I, therefore, suggest that in the primary and secondary stages of education teaching should centre round such phenomena of nature as can be observed in this province, and not those suggested by English experience, so as to stimulate in the young mind a desire for nature study leading to a study of physics, chemistry, biology, and geography. Everyone should be offered the facility for such training as would enable him to earn his subsistence.

Some difference is desirable between the elementary education received by children in towns and that imparted to country children. In the highest class in the elementary school in the country provision should be made for acquiring knowledge applicable to agricultural and rural callings. In towns children in elementary schools should have facilities for learning subjects of a mechanical or technical character.

If the University creates faculties for the study of the various branches of applied science there should be technical high schools at the various divisional centres of this province competent to teach the subjects corresponding to the faculties of the University, such as architecture, building (including civil engineering), machinery (including ship-building), chemistry, etc.

It is desirable to establish a commercial college in Calcutta as there is one in Bombay; and an agricultural college appears to be a necessity in a province pre-eminently agricultural.

At present, those who receive a scientific education are, in the absence of any other career of practical usefulness, driven to the necessity of joining the Bar and other

SEN, BIPINBEHARI—*contd.*—SEN, PRAN HARI—SEN, RAJ MOHAN—SEN, Dr. S. K.—SEN, SURYA KUMAR—SEN GUPTA, Dr. NARES CHANDRA—SEN GUPTA. SURENDRA MOHAN.

over-crowded professions. By a systematic training in applied science their talents will be better utilised, and the province will not have to count upon the services of foreign experts in developing its industries and resources so as to make it self-sufficient and create new openings for our educated youths.

SEN, PRAN HARI.

In view of the startling, and even cataclysmic, changes that have, for years past been passing over the different spheres of human activity, and over the conditions and circumstances of life, and in view of the frightful struggle for existence which has been so furiously raging all over the world, and particularly in Bengal, it is exactly in the fitness of things and fullness of time that such branches of science and learning as agriculture, commerce, industry, and last though not least, ethics and morals, should, without the least delay, be represented in the curricula of, and taught in, secondary schools in Bengal, as well as at the University of Calcutta.

SEN, RAJ MOHAN.

Elementary science, including the science of health and agriculture, should be included in the curricula of secondary schools in order to make the instruction given sufficiently useful to boys who have to finish their education in those schools. I do not think that the number of such boys is small.

SEN, Dr. S. K.

Commercial subjects.

SEN, SURYA KUMAR.

An elementary knowledge of some branches of science, such as physics, chemistry, agriculture, and hygiene, may be imparted with great profit in secondary schools.

SEN GUPTA, Dr. NARES CHANDRA.

Elementary physiology, popular natural philosophy, sanitary science, and first aid should be taught in all schools. Elementary natural history and botany may also form subjects of optional study. I have found my own children showing a great deal of interest in these things, and I suppose all children would do so if these things are taught in the way they ought to be taught. I may mention in this connection the very interesting articles published in the Bengali children's monthly, the "Sandesh" which children greatly appreciate.

I certainly do not insist upon a matriculation examination in these subjects.

In the colleges I think constitutional law and the history of Rome should form a part of the B. L. course, as also histories of Hindu and Muhammadan law and a course of philosophy of law such as may be found in Berolzheimer's book.

SEN GUPTA, SURENDRA MOHAN.

In secondary schools elementary scientific subjects should be introduced. Theoretical and demonstrative training should be given. Moral and physical training should be compulsory for all students in every class. In physical training games should be introduced.

SEN GUPTA, SURENDRA MOHAN—*contd.*—Serampore College, Serampore—SHARP, The Hon'ble Mr. H.

In colleges pure scientific training, preparatory to agriculture, commerce, and industry, should be voluntary courses. Anatomy should be introduced as one of the scientific subjects for the B. Sc. so that students wishing to pursue their study of medicine may finish their scientific studies in any college under the University.

Serampore College, Serampore.

We suggest the following :—

(*a*) General science in schools.

(*b*) English history in connection with the English course in schools, and general history, ancient and modern, in an elementary form in school, and in more detail in college, courses.

(*c*) Anthropology and ethnology, for the study of which India affords so many facilities.

(*d*) Experimental psychology in a more thorough way at the University, with all the necessary apparatus.

(*e*) Education. We think this subject, treated in a non-professional way, may well be an optional subject in the degree syllabus, as it is in several western universities.

(*f*) We consider there is scope for evening classes at the University, say from 5 to 7 P.M., for the benefit of teachers, so as to fit them more thoroughly for their work. In the interests of educational progress it might be well to make such classes entirely free, and even to provide travelling expenses for those not within walking distance. As it is, teachers in private and aided schools receive no more than a living wage, and not always that, and, unless help be given, in the way suggested, little or no progress is likely to take place. The question, too, of vacation schools, corresponding to the summer schools in connection with many western universities, is worthy of consideration. Special courses in such subjects as phonetics for instance, would, we are convinced, be widely appreciated not only by school teachers, but by college lecturers and professors if given under expert guidance and direction. Summer schools in western lands are, it is well known, exercising a most important function in the machinery of educational progress and reform. Here, again, unless special help be forthcoming, finance will prove a real barrier in the way of progress. Only a small proportion of teachers in private and aided schools and colleges can afford to pay money for anything beyond the ordinary necessaries of life. The progress of education in Bengal, as in England, is dependent on a far more liberal expenditure of public money for more adequately remunerating the services of men who do the work of education.

SHARP, The Hon'ble Mr. H.

The course set for the matriculation omits, or makes optional, certain subjects which should figure in a secondary school. This omission does not, of course, mean that the subjects in question are not taught in the lower stages (some of them naturally are), or even that they cannot be taught in the high classes synchronously with those specifically taken for the matriculation. But a subject which is not an examination subject does not receive much attention. I note especially the following :—

(*a*) Theoretically, a boy may enter upon university courses totally ignorant of history and geography, since these are optional subjects. In practice, he would always know something about them. But his knowledge, if he does not take up these subjects as optional, will be inadequate, since he will have studied them but slightly, or not at all, during the preceding two or three years.

SHARP, The Honble Mr. H.—*contd.*—SHASTRI, Dr. PRABHU DUTT—SHETH, Pandit HARGOVIND DAS T.—SINHA, KUMAR MANINDRA CHANDRA—SINHA, PANCHANAN—SINHA, UPENDRA NARAYAN.

(*b*) He is almost certain to be wholly ignorant of science. No provision is made at the examination save for elementary mechanics as an optional; and most schools are unequipped for any sort of science teaching.

(*c*) The examination does not provide for drawing and manual training and, in my experience, these are taught quite inadequately, if at all, in lower classes in secondary schools.

(*d*) Hygiene does not form an examination subject, and is probably very little taught.

All these are important points. History is particularly important as a subject of study for Indian students. Though I am not prepared to advocate the compulsory study of formal science in schools some knowledge of its broadest facts, gained first through nature study and afterwards through simple lessons on natural history and on heat and light, is necessary to develop the power of observation and to provide a boy with some basis for comprehending and appreciating his own environment. Drawing has always seemed to me of vital importance in the school. A few practical lessons in hygiene should be insisted on.

As regards university courses and colleges I have already replied under questions 6 and 7.

SHASTRI, Dr. PRABHU DUTT.

The teaching of the science of Indian music (both the theory and the practice) should be introduced in the schools as well as in the University. For higher studies in the subject the University may organise a separate college of music.

Drawing or painting should be introduced in schools as a compulsory subject. It may also be taught in colleges, though it is not necessary to include it in the formal University examination.

SHETH, Pandit HARGOVIND DAS T.

The scientific study of commercial and industrial subjects should be introduced in secondary schools in their elementary forms, and a faculty of commerce and industry should be introduced in the University. This will divert the attention of worthless art and law graduates from undesirable activities towards the commercial and industrial pursuits conducive to the welfare of the country.

SINHA, KUMAR MANINDRA CHANDRA.

Yes; such branches as industries, anthropology, sociology, etc.; but these would all mean extra expenditure.

SINHA, PANCHANAN.

The elementary principles of human anatomy and physiology should be taught as a compulsory subject in secondary schools and as an optional subject in colleges.

SINHA, UPENDRA NARAYAN.

Commerce, industry, and technology should be introduced in the University curriculum of studies.

SORABJI, Miss L.—STEPHENSON, Lt.-Col. J.—SÜDMERSEN, F. W.—SUHRAWARDY, HASSAN—SUHRAWARDY, Z. R. ZAHID.

SORABJI, Miss L.

It is a great pity that elementary science and English history were excluded from the curricula in 1909. I think these ought to be reintroduced, and that hygiene and botany and domestic science should be taught in girls' schools. Music and drawing, too, should find recognition. The former has a place in the curriculum of most good schools in accordance with the syllabus of the Trinity College of Music, London, but drawing seems to be very much neglected. The Calcutta School of Art has no graded course of examinations for schools. If drawing mistresses were appointed to teach on the Ablett system of the Royal Academy, London, pupils might be prepared for, and obtain certificates from, London. This system has been introduced into the Diocesan Girls' School, Darjeeling, with great success.

STEPHENSON, Lt.-Col. J.

It has always seemed rather strange to me that zoology is not a subject for the Calcutta degree, nor taught in any college in Bengal (except, of course, at the Medical College as an introduction to medicine). The importance of applied zoology to India (parasitology, fisheries, applied entomology in its relation to agriculture) is immense, to say nothing of the interest of general zoological questions—evolution, heredity, genetics.

SÜDMERSEN, F. W.

It is difficult to suggest additions to the curricula of schools which are likely to be accepted and to be, in the present state of finance and of the teaching market, worked up to. The schools have first to seriously endeavour to raise themselves above the range of their present work. When that is done the question of additions may be faced. Undoubtedly, the schools of Bengal should work finally up to something of the present intermediate standard, excepting only such a subject as logic which is usually considered as a university subject of study. The present elementary chemistry and physics of the intermediate is really a school subject, as also a large part of the mathematics of that stage.

And, if the schools are to fulfil their legitimate functions, and not continue to be mere feeders of colleges, a whole range, of practical subjects requires to be added to the curriculum—elementary study of book-keeping, shorthand, commercial correspondence, as well as provision given for hand-and-eye training, designing, etc. Bifurcation two years before the close of the high school stage will demand a doubling of the teaching staff and more than a doubling of the equipment expenditure. And teachers will be forthcoming, but slowly.

With regard to colleges but little addition is advisable at the present stage. The present range is sufficient to tax colleges and staffs to the full if any real attempt is made to work up to a reasonable level of efficiency.

SUHRAWARDY, HASSAN.

Agriculture, physical geography and elementary, domestic and personal hygiene.

SUHRAWARDY, Z. R. ZAHID.

The vernaculars should form a distinct subject in the curriculum. Elementary principles of hygiene and sanitation should also form part of the curriculum up to the matriculation examination.

TARKABHUSHANA, Mahamahopadhyaya PRAMATHANATH—VACHASPATI, SITI KANTHA—VICTORIA, Sister MARY—VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

TARKABHUSHANA, Mahamahopadhyaya PRAMATHANATH.

The University of Calcutta has hitherto ignored one-branch of Sanskritic studies, viz., ayurveda. Sanskrit literature, grammar, rhetoric, and philosophy have all secured recognition from the University, and it has often been shown that their interest is not merely antiquarian or historical, but there are in them ideas that are of permanent value to the enlightenment of the human mind. The researches of Dr. P. C. Roy and Dr. Panchanan Neogi likewise go to show that there are similar grains of gold embedded in the mass of information contained in the indigenous medical system. It does not speak well for the impartiality or openness of mind of a learned body like the Calcutta University to ignore or reject without examination a system of treatment fairly complete in all its branches—and one that has met for centuries past the medical needs of a vast country like India. The University ought to make provision for systematic researches into ayurveda with a view to bringing to light the valuable information that lies buried therein. And to this end an additional group for the M.A. examination in Sanskrit might be instituted, including the ayurvedic texts.

VACHASPATI, SITI KANTHA.

If college education means specialisation school education should aim at a broader basis, and a general elementary knowledge of botany, zoology, physiology, chemistry, hygiene, physics, and economics should be imparted to students of secondary schools by some simple and easy method. They should also be made familiar at this stage with the outlines of the history of the world, especially of India, England, Greece, and Rome. In addition to these subjects of study music, drawing, gardening, carpentry, and selections from sacred books may be introduced as optional subjects in secondary schools.

VICTORIA, Sister MARY.

The study of science should be compulsory in secondary schools. In the junior school it should take the form of nature study; in the senior school the elements of some definite science should be taught. Geography should be compulsory throughout. European history should be taught.

VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

If college education means specialisation school education should apply a broad basis; a fullness is to be aimed at, and a general knowledge of various subjects is to be imparted; but, at the same time, simplification or unification of subjects is necessary, which can be attained if elementary principles of botany, zoology, physics, chemistry, hygiene, and economics (to be taught in a "dogmatic" way), with copious illustrations, accounts of travels, of the landmarks of the history of the world, especially of India, England, Greece, and Rome, showing the salient features in the life and civilisation of different peoples—all calculated to rouse interest in men and things and to call forth the power of imagination—form parts of literary studies in English and the vernacular. Mathematics up to the standard now taught, mechanics, a classical language, history of India and England, and geography ought to be the subjects of study besides English and the vernacular. In addition to these subjects of study drawing, drill, music, gardening, and carpentry (both for hand-and-eye training and for creating an interest in things) ought to be taught in secondary schools, though all of them may not be subjects of University examinations. The study of one of the classics and mathematics of a higher standard may be made optional. Both English and

VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA—*contd.*—VREDENBURG, E. (in consultation with COTTER, G. DEP.)—WALKER, Dr. GILBERT T.

vernacular literature ought to be taught. Text-books treating of subjects given above ought to be prescribed in English and the vernacular. Two papers—one containing questions arising from text-books (carrying 50 marks out of 100) and unseen passages to be explained, and passages for expansion and illustration; and the other giving subjects for original composition (carrying 50 marks out of 100), passages for translation, and questions on grammar—should be set both in English and vernacular.

VREDENBURG, E. (in consultation with COTTER, G. DEP.)

The study of music, both Western and Eastern, should be provided for. Should such a step be contemplated I would make it essential that there should be no option between the Western and Eastern systems, but that the curriculum should strictly include *both*. India has to this day preserved a system of music more ancient and more complete than any other eastern country, and it is deserving of wide recognition and study. At the same time, it is essential that its study should not be divorced from that of Western music, an art which is the strictly scientific and logical outcome of a conscious and deliberate development systematically and uninterruptedly carried out, almost entirely under the direct control of the Church, through more than sixteen centuries in succession. Without the inexorable logic of the Western system a systematic study of the Eastern methods would be fruitless. It is as well to notice that the misapprehensions and prejudices of Easterners regarding Western music are as unfounded as those of most Westerners regarding the Eastern systems.

The subject, in spite of its importance, would have to be introduced very carefully as it will be difficult to find adequate teachers, there being probably no branch of learning at present so largely at the mercy of incompetent teachers.

It may be mentioned that I am advocating only theoretical tuition, at least for the present. The Trinity College examinations, conducted with the object of conferring degrees demanding principally technical efficiency, together with a certain amount of theoretical knowledge, mostly elementary, are at present rendering an immense service to India. In this particular line I do not advocate that the Calcutta University should attempt anything of the sort for the present.

I would make it strictly compulsory for any university degree that the candidate should possess full knowledge of at least *one* religion. The religion which he selects to be examined in should be optional, but the teachers and examiners should be thoroughly qualified persons—Christian priests, Jewish rabbis, Muhammadan maulvis, Hindu pandits, Buddhist bhikshus.

What I am here advocating is not at all anything on the lines of the comparative study of religions, though this may be an excellent line of research for post-graduate studies. I mean only something perfectly simple and perfectly practical, which is that each candidate should definitely state that he possesses full knowledge of one religion, and should be able to pass a rigorous test examination in that particular religion.

I am uncompromisingly opposed to any hybrid, non-committal makeshift of the style of "non-denominational" religious instruction. We can find plenty of adequate teachers in each "denomination". If a student is allowed the option between such subjects as geology or physiology surely he may be allowed the option between frank Hinduism or frank Christianity.

WALKER, Dr. GILBERT T.

As indicated in my reply to question 8 I think it desirable to introduce subjects involving manual work into schools, and to extend the amount of laboratory work in college, and, in the latter at any rate, work should not be made too easy. The training in finding out what is wrong with a galvanometer that will not work may be far more valuable than doing an experiment that is quite straightforward because the demonstrator has seen that everything is in perfect adjustment.

WALKER, Dr. GILBERT T.—*contd.*—WATKINS, Rev. Dr. C. H.—WEST, M. P.

I do not know to what extent the University encourages drawing, sculpture, painting, and music. It appears to me that on the imaginative side a student's mind must be kept alive or he will do no research of any value; and that, in some cases at least, it will help if both painting and music are treated as contributing a vital portion of university life. Both the School of Art and the School of Music in Park Mansions should be subsidised, if necessary, and recognised by the University as a part of its activity. Both have Indians now among their students, I understand.

WATKINS, Rev. Dr. C. H.

I should like to see adequate provision made for the teaching of *Latin* and *Greek*, *French*, and *German*. Perhaps the former could be made an equivalent for Sanskrit, and so encouraged that valuable light would be thrown on history, philosophy, modern languages, and the terminology of intellect in general, and of all the sciences. I speak especially as a professor of English who realises more every day that the bulk of the "English" dictionary is foreign, and that without a grasp of this element our own words are our property only, and not our possession. I need not labour the point that Milton, Shelley, and many other classic English writers whom we have to teach can be traced to their *sources* in this way, and in no other.

If Bengal is to take any great part in advanced research on any subject it is also evident that collaboration with French and (even ?) German scholars will be essential, together with facility in reading French and German books and periodicals.

WEST, M. P.

History is taught, but only for a few hours in a week. The method used is as follows :—

> The teacher tells a boy to read. Occasionally he reads himself. Occasionally he dictates a paragraph or so of the text-book, or of an exactly similar one, as a "note".

The books are very bad. The teacher knows no history, and has no idea of teaching it. History is put towards the end of the afternoon so that it may be the first to suffer from short days and half-holidays (which are very frequent).

Geography is taught in very few schools, and chiefly to the duller boys, because it is regarded as an easy subject. Apparatus has to be bought by the school in order that recognition may be obtained, but the list of prescribed apparatus is very faulty. It does not include a plane-table, a prismatic compass, a barometer, a thermometer. The apparatus is never used by the schools as in the examination the boys are not required to handle apparatus—only to describe it.

The boys have no general knowledge. *Science* teaching in a good laboratory is not possible. But all the better schools could give a very simple course in botany and zoology, or very elementary physics, or physiology, or astronomy. All these are possible.

Hand-work, with mechanical drawing, is capable of being made an examination subject.

The boys have no general reading either in English or in Bengali. The boy can no more "skim" a page of Henty for pleasure than a fifth-form public school boy could "skim" a book of Livy. He could read it and understand it, but so slowly that it would give no pleasure or appreciation. Every out-of-the-way word holds the boy up. The Henty's and Melville Fenn's in the school library show little sign of use. For a chapter or so someone has annotated "casement-window", "flagon-cup", "Zounds—'Exclamation of Astonishment' Oh, dear!"

Then he desists. A missionary told me that the English books in his library most used by college students were the "Books for the Barns". The reason for this was that these were the only books they could read without a dictionary. There are many children's books, "The Story of Rustam," "Robinson Crusoe, in simple English,"

etc., which the boys could read with some pleasure. The University has tried to encourage wider reading, but the books set are much too difficult and the questions set involve too intensive study or else no study at all. The questions are not set by schoolmasters or by anyone connected with school work.

Still more regrettable is the fact that the boys have read literally nothing in Bengali. I set to the B classes (who are the same grade as matriculate boys) the question " Tell the plot of any Bengali novel or story you have ever read ". Almost half the replies gave Æsop's Fables, and the others an Indian story set in the primary scholarship examination some years before.

A few years ago there were few books in Bengali for boys. There are some now—mostly translations, *e.g.*, Jules Verne. These might be read. Some of the standard authors are fit for boys, *e.g.*, Bankim's " Durges Nandini ", but the boys read nothing, not even trash.

The writing of descriptions, stories, etc., in Bengali is not practised at all. Essay writing is done in English and the subjects are usually virtues or proverbs.

WORDSWORTH, The Hon'ble Mr. W. C.

Science is not taught in schools, apart from object-lessons and a little hygiene, in lower classes; general elementary science should be included in the school curriculum, but the difficulty of expense for laboratory equipment stands in the way. Unless a standard of equipment is prescribed, and insisted on, the work will become purely book work. Science teachers for schools are not at present available in sufficient numbers for the change.

Geography should be made a compulsory school subject. It is now neglected except in a few schools, and is taught in only one college—a women's college. When a school takes up the subject it has difficulty in finding a competent teacher.

ZACHARIAH, K.

If I may base my opinions on a rather narrow induction the ordinary schoolboy is singularly lacking in interest. Very few school boys, apparently, have hobbies of any sort; neither games nor nature study nor even literature, at least English literature, attracts them. The chief reasons are the exacting character of the examinations, and the fact that nothing at all irrelevant is allowed a place in the school curriculum. The Bengali boy has, perhaps, a natural bent towards art and nature; only, the latent capacity never gets a chance to develope. I should think it is of the utmost importance that something of drawing and music, botany and elementary astronomy, birds and beetles, should be taught in schools, even if they are not made subjects for examination. In this way each boy may have a hobby, and the educational value, direct and indirect, of a hobby is very great—especially in Calcutta where the student's life is so narrow.

As a teacher of history I should also plead that geography should be made a compulsory subject for the matriculation examination, at least for those students who intend to take up history in the intermediate. I know from experience the bitter futility of trying to make English history intelligible to students who have the vaguest ideas about the situation of London or Paris or Dublin, who do not know that the Severn is a river, and the Pennines a mountain range.

QUESTION 14.

What, in your judgment, should be the relations of the Government of India and of the Provincial Government to the university or universities of a province such as Bengal?

ANSWERS.

ABDURRAHMAN, DR.

The Calcutta University is incorporated by an Act of the Governor-General in Council. Government has founded it, incorporated it, shaped its destiny, and started it on its career. The University of Calcutta and all other Indian universities are the creations of Government and are what Government has made them. There is no doubt that if we trace the development of the Calcutta University since its start it would not be wholly wrong to say that it has developed along the lines of Government resistance. It has never been made to feel its strength, to stand upon its own legs.

But now, when the days of Home Rule have come for India, let us hope that the universities will also receive their long-denied privilege of self-government.

Without labouring the point any further I will first explain the present system of Government control, and will then indicate the lines on which its immediate reform should proceed:—

(*a*) The head of the Calcutta University is the chancellor, and the office is held *ex-officio* by the Viceroy.

(*b*) The officer next to him is the Governor of Bengal, who is the rector of the University whereby, as Mr. Sharp says, "he enjoys a special rank and special opportunities of making known his views." He is the sole medium of communication between the University and the Government of India.

(*c*) The Education Department of the Government of India, consisting of the member, Secretary, commissioner, and assistant secretaries, comes next. Their work is that of general supervision of education and of advice which, in fact, means absolute power to dominate over the University. But for them the Commission would not be sitting to-day to pass judgment over the Calcutta University. They are the *de facto* rulers over Indian education because they distribute the Government appropriations and possess vague general powers and are willed to exercise the same with emphasis.

(*d*) The executive officer of the University (vice-chancellor) receives his appointment at the hands of the Governor-General in Council.

(*e*) The Director of Public Instruction is an *ex-officio* member of the senate and a member and vice-chairman of the syndicate.

(*f*) The authority of the bestowal and withdrawal of the affiliation of colleges rests with Government. The University "can record its opinion, but Government pronounces the verdict".

(*g*) And, last, but not least, the senate which, besides the *ex-officio* members, has a hundred other members, has out of these only twenty elected members. Eighty members of the senate are the nominees of the Viceroy.

This should be enough to make clear the system which has acted with such hardship on the Calcutta University. The University has now long suffered for want of volition, independence, and initiative, and the time has arrived when the cultural progress and general awakening of the people entitle them to freedom in higher institutions of learning without the interference of bureaucratic authority. The struggle for this liberty has begun, and the Commission should be far-seeing enough to respond to the spirit of Indian progress and advancement. A static, or retrograde, policy is out of question and shall inhere its own failure. The University of Calcutta should be made completely autonomous.

ABDURRAHMAN, Dr.—*contd.*

I would suggest the following reforms:—

(i) The Viceroy should, as now, be the chancellor of the Calcutta University. It is a time-honoured custom of all academies that their patrons are generally the reigning monarchs or their honoured and accredited representatives.

But the University should have a different chairman of convocation who should be a person elected annually by the senate. President Thwing in his book *Universities of the World* notes with surprise about the Calcutta University itself that at the convocation "State authority is manifestly made superior to academic authority and the Governor-General presides over the convocation to confer degrees and award honours".

(ii) The office of rector should be abolished.

(iii) The Education Department of the Government of India should have no right of general supervision, inspection, or advice. The education member may however, be made an *ex-officio* member of the senate.

(iv) The executive officer of the University (vice-chancellor) should be elected by the fellows of the University.

(v) The Director of Public Instruction should not be an *ex-officio* member of the senate.

(vi) The constitution of the senate should be revised. It should consist, in no case, of more than five nominated members. These five should be nominated by the Governor-General in Council, and not by the Viceroy. Of the other members half should be elected by a guild of registered graduates of the Calcutta University and half by the constituent colleges from among their professors. The constituent colleges should receive the right of returning a number commensurate with their financial and academic position. Seats should further be allotted in due proportion to the faculties.

Sir Gooroo Dass Banerjee so long ago as 1902 proposed in his note of dissent to the report of the Indian Universities Commission that half of the senate should be elected. Sir Asutosh Mukherjee and Mr. Gokhale a year or two later expressed their opinion that two-thirds of the members of the senate should be elected.

India has made rapid progress since then. Those who study such matters should feel convinced that nothing short of full control will satisfy Indians now.

I would leave five members to be nominated by the Governor-General in Council. The Government can, in this way, if it thinks that certain members of the Education Department or Provincial Government must be represented above all others, appoint them to the senate.

The right of election by graduates might be limited to be exercised by graduates of five years' standing.

The right of election which it is proposed to give to the colleges in place of the faculties is meant to be given to the professors and assistant professors. Sir Asutosh Mukherjee once proposed an electorate of all the professors of the University, but I prefer that, instead of the class of professors all the colleges should be individually represented in accordance with their position. Here, also, a condition might be imposed that though every professor and assistant professor was entitled to vote; no professor or assistant professor of less than two years' standing could stand for election. This will do away (if it is considered a danger) with the possibility of inexperienced men entering the senate. It is not desirable, in any case, to extend this period further than two years as the rule, in that case, will act as a hardship on new colleges.

(vii) The syndicate should be brought under the more effective control of, and made further responsible to, the senate, and should be elected by the senate. There should be no *ex-officio* members of the syndicate. The election should, however, be conducted on a basis to afford sufficient guarantee for the protection of the interests of teachers, whose number should be two-thirds.

AHSANULLAH, Khan Bahadur Maulvi—AIYER, Sir P. S. SIVASWAMY—ALI, The Hon'ble Mr. ALTAF—ALI, Saiyad MUHSIN—ALLEN, H. J.

AHSANULLAH, Khan Bahadur Maulvi.

There should be a separate member in charge of the education portfolio, with a separate Department of Education, who will control both University and secondary education in Bengal. The Governor should be the chancellor of all the universities within his jurisdiction. The affiliation of colleges should rest with the Department of Education, and the recognition of schools with the Director of Public Instruction. In the former case, the recommendation should be submitted by the universities to the education member and, in the latter case, by the inspector of schools to the Director of Public Instruction.

The vice-chancellors should hold their office for three years, and be paid by the University or Government. They should be whole-time officers. The inspectors of colleges should be recruited from among the best professors in India, and be paid by Government. They should hold their office also for three years. There should be at least two such inspectors under each vice-chancellor, one for the inspection of arts colleges and the other for the inspection of science colleges.

The Government of Bengal will be the common link which will bind together all the universities in Bengal. The standard of examinations, the courses of studies, and the conditions of recognition and affiliation will be governed by rules having common principles underlying them. The director will be an *ex-officio* member of the governing bodies of each of the universities and be vested with full powers to inspect colleges and other institutions placed under them. The universities will cease to correspond with the Government of India. They will refer all questions either to the director or to the Department of Education..

AIYER, Sir P. S. SIVASWAMY.

As the universities in India must, for a very long time, continue to receive help from the State Government may well claim a right to see that the funds contributed by it are properly applied for the advancement of sound learning. Generally speaking, it may be said that they should interfere as little as possible in the internal administration of the University, but it would be hazardous to lay down any general propositions. The senate of the University, as now constituted, does not, unfortunately, command the entire confidence of the Indian public and, rightly or wrongly, it is not supposed to be oversympathetic to the Indian point of view. It is felt that in some matters there should be a final right of appeal to Government against the decisions of the senate. But this feeling may disappear with a change in the constitution of the senate.

ALI, The Hon'ble Mr. ALTAF.

I think the University should be subject to the control of the Provincial Government, and should be independent of the Imperial Government.

ALI, Saiyad MUHSIN.

Universities in the presidency should be under the control of the Provincial Government.

ALLEN, H. J.

This is too big a question to be answered, save briefly. Doubtless, to the Western mind, accustomed to the independence of "the democracy of letters", the control claimed

by Government over Indian universities must appear anomalous. While recognising that it has its disadvantages I am not, for obvious reasons, in favour of relaxing that control. Even Mill in England admitted that education could not be trusted to the consumer; and this is India where the sphere of State interference has been of the widest. It is quite certain that the University cannot enjoy financial independence: it must continue to look to Government for assistance. But he who pays the piper may claim at least a voice in the tune. It does not seem to me that Madras, at any rate, has much ground for complaint. A convention of non-interference appears to be in process of formation.

ALLEN, Dr. H. N.

I consider that the relations in Bombay are satisfactory.

ALUM, Sahebzadah MAHOMED SULTAN.

The universities ought to be allowed to manage their own affairs and make their own rules and regulations without interference from Government, but, in the beginning and as long as Indians do not properly learn to manage the universities, Government ought to supervise the same, and have some sort of control.

There ought to be a board of education consisting of the Provincial Governor as chancellor, Vice-Chancellor, who should be a distinguished member of the University and a whole-time paid officer, the Director of Public Instruction, a distinguished Muhammedan member, and a distinguished Hindu member of the University.

ARCHBOLD, W.A.J.

The question of the relation of Government to the universities and colleges in India is a very difficult one. In India people all look to Government to do something whenever a need arises. Government is associated in their minds with efficiency, honesty, security, and permanence. It also conveys the notion of a certain prestige which it is difficult for private undertakings to secure. Government colleges compare very favourably, I think more than favourably, with private ones, and I doubt whether the University, if it were entirely devoid of Government guarantee, could secure its professors as easily as it could do when it is known that there is always Government to fall back upon.

If Home Rule comes in any large measure education will take its place as a department and, no doubt, the conditions will be very different from what they are now. But, assuming that things remain as at present one can only say that there must be some reasonable security of tenure for those who hold educational posts. If that is provided, if the government of the University is in the hands of its own teachers (not of outside lawyers and the like, even if elected by the teachers), if the accounts of the University are published in as full a form as is possible and audited by a Government auditor, I see no reason whatever why self-government should not be given to the University.

AZIZ, Maulvi ABDUL.

I do not think any change in the existing relation of Government to the University or universities is necessary and, if made, will be of any advantage to all concerned. I rather think it necessary that both Governments should exercise greater control over the universities.

BANERJEA, J. R.—BANERJEA, DR. PRAMATHANATH—BANERJEE, GAURANGANATH.

BANERJEA, J. R.

The Government of India ought to be the ultimate controlling authority so far as university regulations, affiliation of colleges, appointments of university professors, readers, and lecturers are concerned as the University of Calcutta was founded by the said Government and it has contributed largely, and is expected to contribute largely, to the University funds. This Government has all along been fostering the growth of this University, and it is right that it should continue to have the same relations to the University of Calcutta as it has now. The Dacca University may well have as its ultimate controlling authority the Government of Bengal as this Government will be in close touch with it.

At the same time, the views of the Provincial Government ought to be considered in important university matters, even in the case of the University of Calcutta, for this Government is directly in touch with the University. Hence, in all important university matters, though the Government of India ought to be the ultimate controlling authority, the Provincial Government may well be heard before any decision is arrived at by the Government of India.

BANERJEA, DR. PRAMATHANATH.

The universities should be independent of Government control in regard to their internal administration. A policy of non-intervention on the part of Government would be the best in this matter. The right of Government to nominate members of the senate should also be curtailed, and the constitution of the Calcutta University should be so amended as to provide for three-fourths of the senators being elected by the professors of colleges and the registered graduates of the University. Government ought, however, to help the University with funds and, when they do so, they may satisfy themselves as to the proper application of those funds by insisting upon a proper method of accounts and audit.

BANERJEE, GAURANGANATH.

The universities are national institutions doing national work. They cannot be divorced from the general educational machinery of the country or remain rigidly fixed to old methods and machinery, unrelated or inadequately related, to modern needs. The universities may be maintained by endowments left by private persons and they may be, for the most part, independent of help from outside sources. The universities are, therefore, the immediate trustees of the benefactions left them for the purposes of higher education. But the ultimate trustees are Government, which alone possesses the power and disinterestedness to bring co-ordination and unity between independent, and sometimes antagonistic, interests, to see that the spirit is not sacrificed to the letter of their trust, and that the general interests of the beneficiaries, who are the people of the entire nation, are adequately secured. Nor is it a sufficient reply to urge that the universities are efficiently governed and should be left to work out their own salvation. Even if there were no obvious anomalies, or challengeable methods, or unwise isolation, or wasteful overlapping, the Government of India should have a supervising and controlling power over the actions of the University. No institution, however glorious, should remain without the stimulus from time to time arising from impartial enquiry, criticism, and suggestion by the supervising body. These latter are specially urgent now when we are seeking after a scientifically related system of national education.

But I emphatically protest against the present system of governing (and too often dictating the policy) the affairs of the University of Calcutta by a few narrow-minded bureaucratic officials having no knowledge either of the internal working of the University,

or of the peculiar needs and the general interests of the nation. What I propose is that neither the Government of India nor the Provincial Government should interfere, as a rule, with the internal working of the institution or with the disbursements of its finances, but should only see that the general interests of the nation are adequately safeguarded and that a scientifically related system of education on a national basis is given.

BANERJEE, Sir GOOROO DASS.

In my judgment, the relation of the Provincial Government and of the Government of India to the universities of a province like Bengal should be only like that of an ultimate controlling authority, with power such as every State responsible for the peace of the country should possess of preventing any revolutionary tendency in teaching. Such power should be vested only in the head of the Government; it should be exercised only in extreme cases for reasons recorded; and it should produce its salutary effect more by its mere existence, than by its actual exercise. But, in all matters of internal administration, the universities should be independent and free from external interference if they are to exercise their functions efficiently and to enjoy and deserve the respect and confidence of the people.

BANERJEE, JAYGOPAL.

The internal administration of the University should not be interfered with by the outside executive authority. In matters purely academic the University should also be the final authority. Financial control over the budget may be exercised *in a general way* by the Imperial Government, and the Provincial Governor should come into closer touch with the working of the University as its rector, or preferably, chancellor without unduly curtailing the executive power of the Syndicate. The Education Department should be, as far as possible, separated from politics and considered as more "academic" than "administrative" in its management, sphere of work, ideas, and ideals. It is a moot question whether the chancellorship of the University should continue with the Viceroy and Governor-General.

BANERJEE, Rai KUMUDINI KANTA, Bahadur.

The universities of a province should be directly under the Government of the province. But, in the case of the present Calcutta University, the present arrangement may continue. All new universities should be directly under the Government of Bengal.

BANERJEE, MURALY DHAR.

Bengal is now fit for educational autonomy both Provincial and Imperial. The Provincial and Imperial Governments should adequately endow the existing University, and the universities that may grow up in future in the province with a part of the State revenue, should be represented in the senate and the executive and exercise the necessary control through these bodies. The majority of the fellows, however, should be elected by the graduates and the staffs of the affiliated colleges. Government should not interfere in the administration of the universities unless there is abuse of power.

BANERJEE, SUDHANSUKUMAR.

The Government of India and the Provincial Government should finance the University, help the University, as far as possible, in carrying out its designs, and help the estab-

BANERJEE, SUDHANSUKUMAR—*contd.*—BANERJI, MANMATHANATH—BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN—BARDALOI, N. C.—BASU, P.

lishment of new educational institutions throughout the country. In matters of principle the University should enjoy perfect autonomy, and the State should have the power of voting only in the management of University affairs. It must be said that the granting of perfect autonomy to the University has long become overdue. About seventy years of Government control must be regarded as more than enough. The maintenance of a separate educational establishment by Government (such as the offices of the directors of public instruction, the divisional inspectors of schools, etc.) seems to me to be quite unnecessary. Government colleges and schools should be handed over to the University. The University should be regarded as quite competent to solve the educational problems of Bengal. The University should also have a voice in the formation of the provincial budget. Government should help the University to be financially strong so as to enable it to exercise an effective control over the management of its own affairs and those of its constituent institutions.

BANERJI, MANMATHANATH.

If the principle that the University should be a teaching body be accepted I do not think it necessary that Government should bother itself with the management of its own colleges. I, therefore, think that Government should make over its colleges in the province to the University, and the management of them should be entirely vested in the hands of the University. The University should thus absorb the Education Department of Government, leaving primary and middle English school education in the hands of Government. The University, moreover, should take over the full control of high school education, and advise Government regarding the policy to be adopted in the case of primary and secondary school education. This would thus lead the University to have a free hand regarding the educational policy of a province. The University should then become, to a certain extent, a department of education of the Provincial Government and thus be in consultation with it. The University should have a definite source of allotment from the Government revenues of the province, and should also be empowered to tax the municipal institutions, the Port Commissioners, and the railway companies in the province. Thus, the University will represent the Education Department of the province in a semi-autonomous character, and should be under the direct control of the Government of India.

BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN.

The relations between the universities and Government should be such as to leave to the former complete freedom of action, subject to control by Government when the universities depart materially from their legitimate functions. In all matters of detail the universities should have full powers; interference by Government is undesirable.

BARDALOI, N. C.

The Government of India should have nothing to do with the University or universities of Bengal, but Assam should have a separate residential university of her own before Bengal has full control of her own university or universities.

BASU, P.

The Government of India should have merely the right to see that there is not any abuse of the administrative powers vested in the University. At present, the syllabus or the course prescribed for the different examinations is required to be approved by the Government of India before it can be applied. This is one of the most

mischievous rules that is allowed to obtain in university matters. Whatever may be the qualifications of persons in charge of the Government of India they are purely political and administrative. Their judgment with regard to the courses of study can never be a sound one. Nor are they supposed to keep themselves in touch either with university affairs in England or with the special local conditions of the Calcutta University. The result is that the most expert opinions in academic affairs are submitted for approval or rejection to a body which is usually unfit for the purpose and yet which, if it chooses, can be obstructive to the proper development of the University. In any case, the system involves loss of time and of the sense of independence which ought to fill the atmosphere of the University. It would be absurd if the British Cabinet undertook to supervise the courses of study in the London or the Cambridge Universities, yet this is the system in India.

The Provincial Government should have still less to do with university administration. The Director of Public Instruction is a member of the syndicate, and Government has too many nominated members. The Provincial Government is directly represented in the administration of the University, and it should have no other power than that of reporting to the Government of India any case of actual abuse which threatens to reduce the capacity of the University for doing good as an educational body.

During recent years the University has been subjected to so much interference from the Government of India that one feels in favour of a complete divorce between the two bodies. But it is hoped that this series of unusual interferences was due to causes which are not likely to be permanent.

With regard to the appointment of the staff the interference of the Government of India has been most pernicious. Scholars of very great achievements have been refused merely because they happen not to profess what the Government wants them to do in matters of political discussion. The ground given in some such cases was the necessity to maintain the pure atmosphere of study untroubled by the political discussions of the moment, but none of these scholars who were going to be appointed were to lecture on current politics and it was not at all proved that they would go astray and irrelevantly talk politics while teaching English literature, ancient Muslim history, or public international law. This was evidently a case where Government intervened without any cause for it. They might more prudently have waited and seen if these scholars were stupid enough to bring the heat of current political life into their lectures on English literature. But, on the contrary, there have been professors of very high grades in Government service who do occasionally say good-bye to their courses of study and, to the diversion of all, give sermons on questions of modern politics in India. By applying the same principles of Government these persons should have been immediately removed from the instructing staff. But this was not done because these persons happened to be irrelevant in support of Government.

This is not unnatural, though highly unjust. If the intention of Government be to create "a pure atmosphere of study" without anything of present politics, let that be strictly adhered to so that students may be absolutely free from any political bias. It is a grievous wrong to allow pliable minds to be impressed by the opinions of one side, which are usually expressed with all the vehemence and overcolouring of partisanship while shutting out all opinions of the other side. Even if Government do not mean so the University, thus, is used as a safe machine for propagandist work of a political nature. This is unjust and pernicious both to the students and to the nation and, as such, requires to be discountenanced. The remedy lies in withdrawing the power of Government with regard to these matters and vesting in the University the right to punish any of the professors in Government service who may, in future, be impudent enough to be so irrelevant, while, apparently, lecturing to the class on some innocent topic.

BASU, SATYENDRA NATH.

Advanced universities in other countries are practically independent of Government control. However desirable it may be to follow them it may not be expedient to establish similar relations in the near future between Government and universities in this country.

Bengal Landholders' Association, Calcutta—BHANDARKAR, D. R.—BHANDARKAR, Sir R. G.—BHATTACHARJEE, MOHINI MOHAN.

Bengal Landholders' Association, Calcutta.

We think all the different universities should be under the Government of India. The educational member of the Viceroy's Council should be the head of the Education Department in all provinces. The university of a province should be the controlling head of all incorporated educational institutions in that province. Government, however, should not interfere with the internal administration of the universities.

BHANDARKAR, D. R.

The University should be allowed freely to work out its own salvation, and Government should not interfere with its working unless they think that the University is taking steps which are positively detrimental to the cause of education, or are objectionable from the political point of view. Under the latter circumstances the matter should be decided by the Viceroy's Council alone, and not by any one official. It is, however, necessary that Government should feel some interest in the University, and the Governor and the Viceroy should, therefore, continue to be the rector and the chancellor of the University, as heretofore, but the vice-chancellor should, in all cases, be elected by the senate. He should be their whole-time officer, and should be paid, if possible. If he happens to be a Government servant his services should be transferred to the University.

BHANDARKAR, Sir R. G.

The relations at present existing between the Government of Bombay and the University of Bombay are generally satisfactory. They may be gathered from the following facts :—

(*a*) The members of the Executive Council are *ex-officio* fellows of the University.
(*b*) Eighty per cent of the fellows is appointed by the chancellor, who is the Governor of Bombay.
(*c*) The vice-chancellor, who is the chairman of the syndicate, and generally presides over the meetings of the senate, is appointed by Government.
(*d*) The Director of Public Instruction of Bombay is an *ex-officio* member of the senate and the syndicate.
(*e*) The resolutions of the senate have to receive the final approval of Government.

Government should not interfere with the details of university administration nor endeavour to influence debates on special subjects in the senate.

I think the affiliated colleges should be represented in the senate, and the staffs of these colleges should be formed into a constituency and allowed to elect twenty-five ordinary fellows out of the number now elected by the chancellor. All the ordinary members of the senate should be men known to take a keen interest in education, or should be holders of degrees of any Indian or European university.

BHATTACHARJEE, MOHINI MOHAN.

A close connection between the University and the Government of India was established by the Act of 1858 which led to the foundation of the University. The Viceroy was made the *ex-officio* chancellor and the Indian Government was given the power of nominating the vice-chancellor and a large number of fellows of the University.

This connection was continued even when the capital was removed to Delhi and the Viceroy began to divide his time between Delhi and Simla. So long as Calcutta was the capital, and the Government of India spent a portion of the year in this city, the

University might be said to have an opportunity of attracting the notice and interest of the Supreme Government and, as such, there were *primâ facie* some grounds for the retention of the control of the University by the Supreme Government. But, since 1911, the Government of India has been prevented by distance from watching over the educational affairs of Bengal, and the justification for retaining control over the University has vanished. It has been urged that the Calcutta University is entrusted with the education of other provinces than the Bengal Presidency, *viz.*, Bihar, Assam, and Burma, and the Bengal Government is naturally not concerned with the interests of these provinces. In order to safeguard the interests of these provinces the Government of India should, it is argued, retain the control of the University of Calcutta instead of handing it over to the Government of Bengal. This argument has lost much force by the creation of the Patna University and the formulation of a scheme for a university at Burma. Moreover, the number of students in Burma and in Assam is not very large, and it is hardly wise to continue the arrangement by which a department situated at a distance of a thousand miles from Calcutta is vested with the power of controlling its university on the technical ground that the few students of Assam and Burma are not represented by the Government of Bengal.

The Bengal Government ought, therefore, to replace the Government of India so far as the Calcutta University is concerned. But the relations between the University and Government should not be the same as they have been up to this time. Up to this time Government has had too much power of control over the University. Under the regulations the appointment of university lecturers and professors is subject to the sanction of Government, and so is the recognition of schools and colleges. The senate consists of men who take an interest in education and are fit to advise on educational matters, and a large majority of members of the senate is nominated by Government, and it is sheer red-tapism to subject the decision of this body to the sanction of a Government department which certainly cannot secure the services of better men to criticise the recommendations of the senate. The defect of the system is, however, apparent. The members of the senate feel that their power is illusory and do not take as keen an interest in their work as they ought to do.

The new regulations define rigidly the courses of study and the number of papers that have to be set at an examination. No changes can be made in the syllabuses or courses of study by the senate or the various boards of studies or faculties without the sanction of Government. If a change is recommended as necessary and desirable it is liable to be rejected at Simla or Delhi. Preparation of syllabuses and of courses of study, as well as their amendment, requires experience in teaching and is better done by educational experts. In 1914 Sir Asutosh Mukherjee, the then vice-chancellor of the Calcutta University, rightly complained in his convocaiton address against the overruling of expert opinion in educational matters like the formation of syllabuses and courses of study by Government at Simla.

There is one subject closely connected with the question of Government's relations with the University. This relates to the constitution of the senate. Of the 100 members of the senate eight are nominated by Government, ten by the faculties, and only ten by the registered graduates of the University. The University has in its hands the destinies of about fifty colleges scattered throughout Bengal. Of these only a dozen are Government institutions and the rest are private. The majority of the students of the University is educated at private colleges Then, again, the University has its chief source of income in the fees paid by these students when they are candidates for university examinations. The recurring grant from Government, except the endowments for some of the University chairs, is small in comparison with them. In fairness to these colleges they ought to have substantial representation in the senate and the number of Government nominees should be cut down.

BHATTACHARYYA, HARIDAS.

The University ought to be more and more autonomous. Subject to this general principle the present system ought to continue. *The Viceroy and Governor-General ought*

BHATTACHARYYA, HARIDAS—*contd.*—BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA—BHOWAL, GOVINDA CHANDRA—BISWAS, CHARU CHANDRA—BOMPAS, The Hon'ble Mr. C. H.

to be the Chancellor of the Calcutta University because this would redound to the prestige of the University and serve as an historic index of the once metropolitan character of Calcutta.

Calcutta is uniquely situated and, even when Burma and Assam get separate universities of their own, students from Bihar and Orissa, Burma, Assam, the United Provinces, and Madras are likely to seek its higher degrees. Any careful observer would find out that within the last ten years the foreign element in college classes has perceptibly increased.

Other universities are likely to be established as education becomes more general, and the Governor of the Presidency of Bengal ought to be the chancellor of such universities unless it be decided that chancellorship should be decided by election. The Governor ought to be the chancellor of the Dacca University, but he should continue to be the rector of the Calcutta University as at present.

The Calcutta University has grown to such dimensions with its numerous faculties that large expenses would be recurrent. To thrust such a university upon the Bengal Government would mean a serious strain upon the provincial revenues and a curtailment of the evergrowing activities of the University. Till Bengal becomes fiscally autonomous she is not likely to be able to maintain decently such a big University, and it would be impossible to found other universities within the presidency. The only way out of the difficulty will be to levy an educational cess. Even this cannot be offered as a complete solution as the total cess realised would be insufficient to meet the expenses of university education, as well as of primary education, which would have to be made free and compulsory as a set-off against the additional financial burden imposed.

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

The university should be a self-governing and self-elective body, with the Viceroy as the supreme controlling authority.

BHOWAL, GOVINDA CHANDRA.

The universities should be free from all direct Government control. They should be autonomous. Government will enunciate the policy of education to be followed consistently with the interests of the people and Government alike. Government interference should not step in unless, and until, the policy of the university becomes hostile to the interests of Government.

BISWAS, CHARU CHANDRA.

In academic matters Government should have no powers of interference with the university.

The elective principle in its constitution should be further widened, the right of veto now possessed by Government being done away with.

BOMPAS, The Hon'ble Mr. C. H.

As the Government of India and of the provinces are understood to be now in the melting pot it is difficult to answer this question. Broadly speaking, the less a foreign Government has to do with a university the better.

BOSE, B. C.—BOSE, Rai CHUNILAL, Bahadur—BOSE, HARAKANTA—BOSE, KHUDI RAM.

BOSE, B. C.

If there is to be only one university in Bengal, as suggested in my answer to question 4, the relations of His Excellency the Viceroy and His Excellency the Governor of Bengal to *the University here* should continue as at present. As the premier university in the country, as the mother of all the universities in Northern India, and as yet possessing jurisdiction beyond the territorial limits of the province, it *fully deserves to retain the privilege and distinction that it has enjoyed all along.* But whether it is the local or the Supreme Government that is to be directly connected with the University, the relation of Government to the University must be one of the utmost sympathy, co-operation, and help. Education can always claim very strong support at the hands of Government, as well as exemption from injurious interference. *Government should, on the one hand, allow to the University a large amount of freedom from officialism and, on the other, be always ready to listen to its requests and fulfil them,* as it has so often done in the past. Nor should there be any hesitation on the part of the University to approach Government in respect of finances, or of measures like those contemplated in my answer to question 18.

It would be no small support to the University if Government were to engage, and influence private companies or firms to engage, such young men as are trained and declared proficient by a local university (in respect of general culture or technical skill, as the case may be) in preference to people of the same ability and qualifications turned out by other universities or devoid of any university education (*cf.* question 15). This should, therefore, be always attempted, as far as possible.

BOSE, Rai CHUNILAL, Bahadur.

The universities should be independent of the Imperial and Provincial Governments in regard to both their internal and external management. The Education Department of the Provincial Government should be represented both on the senate and on the syndicate of the University. It should have dealings with the Provincial Government only.

BOSE, HARAKANTA.

The relation of the Government of India and of the Provincial Government to the University should be like that between a benevolent father and his grown-up son; there is now in the province such a large number of educated men capable of managing efficiently the affairs of the University that it may safely be granted a full measure of self-government. The Government of India should, however, continue to render pecuniary help to the University and watch its progress; and the Provincial Government should be represented on its governing body by the Member in charge of Education, the Director of Public Instruction, and a few high officials of the Education Department, whose wise counsel and expert knowledge would be of great help to it.

BOSE, KHUDI RAM.

The genius of the Calcutta University—indubitably the premier university in the East—that has lent itself to its rapid evolution (through many a good report and evil) into the first teaching university of the British Indian Empire has, I venture to submit, amply made good its credentials for evolving itself further into the first autonomous university in that Empire in its relation alike to the Provincial and the Imperial Governments.

BROWN, ARTHUR—CHAKRAVARTI, BRAJALAL—CHAKRAVARTI, CHINTAHARAN—CHANDA, The Hon'ble Mr. KAMINI KUMAR—CHATTERJEE, RAMANANDA.

BROWN, ARTHUR.

It is important that there should be some general Imperial control over all the universities. It is most desirable that the various Indian provinces should not be water-tight compartments in matters of education, but that teachers should move from one to another much more freely than at present. Without that those who are unfortunate to be away from certain centres are doomed, and it is not to the interest of higher education that they should feel doomed. Moreover, it must be borne in mind that India cannot possibly have more than one or two even moderately good universities, even though she may have a multitude of indifferent ones. It may be desirable to relieve the situation in this part of India by dismembering the University of Calcutta, but the University of Calcutta would remain the only university from which anything could ever be hoped. It would continue to attract, and should continue to attract, students from districts out side its own proper province. I say "should continue" because it would remain the sole chance of youths from a very big part of India getting an adequate education. Therefore, it should remain a university under Imperial control.

CHAKRAVARTI, BRAJALAL.

I would advocate a return to the old Hindu method of work. So far as the work of teaching and the internal management are concerned it should be left to the professors who are engaged in the work. There will be general supervision by Government. Universities should be patronised by Government and be free from all taint of a commercial spirit. The present method of collecting fees from students should be abolished and, subject to the income of endowments, the cost of maintaining teachers and students should be borne by Government.

CHAKRAVARTI, CHINTAHARAN.

A university or universities of a province should be under the control of the Provincial Government. The present relation between the Calcutta University and the Government of India may, however, continue. But the universities that may hereafter be established should be under the control of the Provincial Government only.

CHANDA, The Hon'ble Mr. KAMINI KUMAR.

I would have universities as self-governing institutions independent of Government control.

CHATTERJEE, RAMANANDA.

The university or universities of Bengal should be free from all Government control. They should be self-governing bodies like the great British universities.

In our country educational problems have to be considered, it is thought, from both political and educational points of view. I will do so briefly.

The persons who generally compose the Governments of India and Bengal are not intellectually and morally and by their scholastic and scientific attainments better fitted to control the affairs of the university than the university and college professors, the learned professions, and the body of graduates, combined. There remains, then, to

CHATTERJEE, RAMANANDA—*contd.*—CHATTERJEE, Rai Bahadur SARAT CHANDRA.

consider the question of political control. The laws of the country are quite sufficient to prevent any abuse of opportunity by professors and others connected with colleges and the University. As responsible government has been authoritatively declared to be our political goal, and as we have been promised a substantial first instalment of it at no distant date, there must now be less reason for apprehending any political evil consequences from granting full self-government to the University. No corporate body in the country is better fitted for full self-government than the University as all its members are adequately educated responsible persons. Such self-government is essentially necessary for stimulating a public interest in its affairs, for increasing the flow of benefactions towards it, for preventing abuse of power by cliques, and for making the University a part of our national life. We cannot do the best for it, and cannot have the best from it, so long as we cannot rightly consider it our very own.

It may be said that Government will not help the University with money unless it can control it, on the principle that he who pays the piper should have the right to call the tune. But it is really the people who pay the piper, and, therefore, it is their representatives who ought to exercise control. However, in any case, it is better for the University to be free and poor, than dependent and wealthy.

I think we are fit to manage the affairs of the University. Even a conservative like the late Sir George Birdwood, whose direct touch with India ceased long ago, since when we have made much progress in education, wrote in his *Sva :* "Were I responsible for the government of India I would at once place the Educational Department wholly in the hands of duly qualified Hindus, Muslims, and Parsis."

Various British and other Western authorities have declared that, in order to perfectly fulfil their function as instruments of human progress, universities should be independent of State control. For instance, Principal Griffiths said in the course of his address at the educational section of the British Association meetings in 1914:—

> "The freedom of the universities is one of the highest educational assets of this country [Great Britain], and it is to the advantage of the community as a whole that each university should be left unfettered to develop its energies, promote research, and advance learning in the manner best suited to its environment. It is conceivable that it might be better for universities to struggle on in comparative poverty rather than yield to the temptation of affluence coupled with State control."

It may be urged that, unless there is State control over our universities, Government may refuse to recognise their certificates and degrees as qualifying for the public service. I do not see why Government should act in that way, particularly as Government itself is going, according to authoritative declaration, more and more to be responsible to the people. Government cannot have a better recruiting-ground for its services than the class of graduates in the country.

Question 6 asks what callings and professions are necessary "for service to, and the advancement of, India." The University can be an instrument for such service and advancement only to the extent that it becomes self-governing.

CHATTERJEE, Rai Bahadur SARAT CHANDRA.

The answer to this question depends upon the financial relations between the two Governments. If the Provincial Government is given entire control of certain revenues, and is given the right to impose taxes for purposes of education then, the Government of India need not have any connection with the University. So long as the Government of India continues to be the authority to make the educational grants directly or through the local Government the University should have direct communication with the Government of India.

CHATTERJEE, SUNITI KUMAR—CHAUDHURI, The Hon'ble Justice Sir ASUTOSH—CHAUDHURI, BHUBAN MOHAN—CHAUDHURI, The Hon'ble Babu KISHORI MOHAN—CHOUDHURY, Rai YATINDRA NATH—COCKS, S. W.

CHATTERJEE, SUNITI KUMAR.

The Government of the country, Imperial or Provincial, must necessarily continue to be the main, if not the only, financier of the University. So it is desirable that it shall see that the funds supplied by it are not misspent. But the University must be completely self-governing, and Government must not interfere with the University either in its policy or in its internal administration.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

I think all the different universities should be under the Government of India. The educational member of the Imperial Legislative Council should be the head of the Education Department of all the provinces. The university of a province should be the controlling head of all incorporated educational institutions of that province.

CHAUDHURI, BHUBAN MOHAN.

In all other matters, except finance, the University should be independent of the Government of India. The Government of India should render adequate financial assistance to the University, but cease to interfere in the internal administration of the University. The Governor of Bengal should be the chancellor of the University and, as such, should be connected with the University, but the decision of the senate should be final in all university matters.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

I think the functions of Government in relation to universities should be restrictive and negative, rather than active and positive; that is, so long as the University conducted affairs satisfactorily there should be no interference on the part of Government at any stage. The University, therefore speaking generally, should have autonomy in managing its own affairs, with a certain grant from the local Government. The Government of India should have nothing to do except to maintain a general supervision. Secondary education also should be controlled and supervised by the University, with the help of an expert inspecting staff. If, however, there is any great dereliction of duty on the part of the University Government should interfere. It would be well for this purpose to have a periodical inspection of University affairs by experts appointed by Government.

CHOUDHURY, Rai YATINDRA NATH.

The Government of India ought not to have any direct control over our University. Our University should be in direct touch with the Provincial Government which will look after its affairs through a member of its Executive Council who will be always an Indian.

COCKS, S. W.

It appears to be necessary that the Provincial Government should, through the Governor or Lieutenant-Governor as chancellor, control, by means of the right of veto, the policy of the University. The control of the Government of India should be limited to the approval of the Bill incorporating the University. That done, all powers at present exercised by the Government of India might safely be delegated to the chancellor

COCKS, S. W.—*contd.*—CULLIS, Dr. C. E.—CUNNINGHAM, The Hon'ble Mr. J. R.—DAS, Dr. KEDARNATH—DAS GUPTA, SURENDRANATH—DE, SATISCHANDRA.

In financial matters the University should be under the control of Government since it must rely for a long time to come mainly, if not entirely, on public funds for maintenance. This condition necessarily limits the growth of the University but, no doubt, in course of time, wealthy citizens will contribute to its funds, and its future development will depend very largely on the degree of support it receives from endowment by private benefactors. Nothing in India corresponds to the conditions under which education became in Europe the care of a powerful and wealthy organisation largely independent of the State, and in India the highest, as well as the lowest, stages of education must be the affair of the secular authority.

CULLIS, Dr. C. E.

It would seem that education (including elementary and technical education) should be one of the most intimate concerns of the Provincial Government, and that the Government of India should encourage and stimulate the Provincial Government to devote the closest attention and the best thought to education.

University education has reached a sufficiently high stage of development to have a large measure of independence. The supervision of university education can be entrusted to the University, the Provincial Government exercising control proportionate to its contributions to the funds, of the University, but reserving the right to exercise full control.

CUNNINGHAM, The Hon'ble Mr. J. R.

It is difficult without time and study to answer such a question except generally. It appears to me to be essential that Government should preside.

DAS, Dr. KEDARNATH.

The control which is vested in the Government of India and the Government of Bengal by the Indian Universities Act, 1904, over the Calcutta University seems to be salutary.

DAS GUPTA, SURENDRANATH.

As regards this question I think that immediate connection with the Government of India is often the cause of much delay and postponement of many duties requiring immediate action. It would be better if the Governor-General delegated most of his powers to a board consisting of members nominated by the Government of India and the Government of Bengal, and elected by the Bengal Legislative Council and the University.

For all ordinary purposes this board should determine the relation of Government and the University. It is only when there is a difference of opinion between this board and the University that the Government of India should be approached by the University to finally decide the point in question. The University should have power to approach the Government of India on matters such as that of Imperial grants or the like directly or through the board.

DE, SATISCHANDRA.

Government should interfere only when there is a widespread scandal indicating that the public have lost their confidence in the University executive.

DE, SUSHIL KUMAR—DEY, BARODA PROSAUD—DEY, N. N.—D'SOUZA, P. G.

DE, SUSHIL KUMAR.

I have not studied this question in all its bearings, but if I may be permitted to offer a layman's point of view I would suggest:—

(*a*) That the Provincial Government should take the place of the Government of India in the constitution of the University. It is very difficult to understand what the Hon'ble the education member meant when he said that from the serene and calm heights of Simla the University problems could be seen in the light of a better perspective; but one would feel more inclined to agree with our noble chancellor when he said in the last annual convocation (January, 1917):—"Since I assumed office I have been very conscious of the grave inconvenience of the distance which separates the University from its Chancellor and the Government of India. It is impossible for us to have that close and intimate knowledge of your affairs which only residence on the spot can give." It is time indeed that the Government of Bengal should take over charge.

(*b*) As to the general relation between the State and the University my view is that, in matters purely academic, the State ought not to interfere, and the University ought to be given perfect autonomy in this matter—for the worst form of State tyranny is tyranny over thought. As an instance to the point I may quote the case of the appointment of professors or lecturers. The University is, undoubtedly, the best judge for this purpose; but the sanction of Government, under the University constitution, is necessary and it may peremptorily refuse such sanction and, in some cases, it has. With regard to the teaching staff in a Government college an anomalous state of things exists. The appointment, control, and transfer of teachers are matters entirely in the hands of Government, although the University, which is concerned with the efficiency, or otherwise, of the teaching staff, ought to be allowed supreme control over these matters. Only general control in matters other than academic should be reserved to the State.

DEY, BARODA PROSAUD.

The Government of India, as at present situated, should have the general control of all universities in India, and the respective Provincial Governments should be more closely associated with the universities in their provinces. In cases of any difference of opinion between Provincial Governments and their universities the Government of India may act as arbitrator.

DEY, N. N.

The present system may be maintained—the Viceroy being the chancellor having the power of veto. Both the local and Imperial Governments are, and will continue, to be the chief benefactors to the University. Only one-fifth, and no more, of the members of the senate should be nominated by Government, the remaining four-fifths being totally elected from different electorates already mentioned. The vice-chancellor ought to be elected by the senate.

D'SOUZA, P. G.

In all academic questions the University should be independent of Government control. It should also have a voice in the appointment of university professors. It

D'SOUZA, P. G.—*contd.*—DUTT, P. N.—DUTT, REBATI RAMAN.

should also have complete financial independence within its budget limits The power of Government to interfere should be limited to cases in which they are satisfied by the report of an independent commission that the affairs of the University are not managed so as to serve the objects and purposes of the University or a complaint to this effect is received from not less than one-third of the senators or one-fourth of the number of registered graduates.

DUTT, P. N.

The control of the University may, with advantage, be transferred to the local Government. In the past there has been a good deal of unnecessary friction between the University and the Government of India. The local Government, being on the spot, will be better able to deal with university problems and thus avoid unnecessary friction. The idea of the University being ruled by a body outside its limits, and beyond its influence, does not find favour with me. As regards the amount of control necessary to be exercised much will depend upon the personnel of the University and the controlling Government, and it is difficult to say anything definite. As regards finances, at present Government exercises no control, nor does it exercise any control over matters of internal management, like the creation of appointments. My own idea is that the whole question of control by Government over the University should be reconsidered in the light of past experience, and that, in future, in all matters in which powers of control are reserved by Government the University should submit to it willingly and ungrudgingly, but that powers of control should be reserved by Government, only where they are actually necessary, and that in all other matters the University should have a free hand.

DUTT, REBATI RAMAN.

A great race of the West, seething with the pulsations of a new life, came to this land of the Ganges, the pilgrim's hall in the East, with all its perfumed proffer of justice, liberty, and right, and slowly obtained its status supreme amongst the ever-charitable people of the East. That is the administration that began, that is our Government. It was destined to confer upon the natives of India those vast material and moral blessings that she may under Providence derive from her connection with England. It was bound to proclaim the dawn of a great festivity in the common quest of truth and knowledge, in the common worship of the Great One above. It came with its music at the door and called our fathers and uncles out to wake us up from our slumber in the dark chamber inside and we rushed in joy and inaugurated this University, this organised talent of the East and the West. Thus, the interests of the administration and of the University are one and the same: their end in view is one. The University is the body that, by its very organisation, by its very name, is responsible for the advancement of learning, is responsible for the cause of education in the land. It is the University that should say where a college or a school should be allowed to grow, and with what equipment, surroundings, or pecuniary responsibilities it should be allowed to come up for recognition. The University is more than sixty years old, with its array of brilliant men, and must realise this position to the full, and must manage to do without any guidance and censoring from outside. The administration is ever there with it, and within it, with the offer of assistance from the educational experts of the West, with the offer of a portion of its revenue; and let the University shape itself anew, plume itself with the best feathers. This should exactly be the relation between the University and Government. It is the University's care to find which college or school requires a grant in its aid, which college or school can do without it, and to which fresh college or school the grant may go. The amount of grants-in-aid for colleges and schools will, thus, be at the disposal of the University, and there will be formed a college education board within the University. The Director of Public Instruction will necessarily be in it and the University's own college inspectors

DUTT, REBATI RAMAN—*contd.*

also will be there. The board will administer the fund according to the necessities of particular colleges.

The University should exercise exactly the same powers with regard to its high schools. The University should not rest satisfied with its initial information, that the school came up to the necessary standard of recognition, but should continue to exercise its influence steadily. It will be the University's care to see that the school may not die, its standard may not fall off, and it will be the University's task to see where fresh schools, fresh centres of education, may be opened. Schools are many and scattered all over the country and their number is ever on the increase and it is not possible for a centralised body like the University of Calcutta to exercise these functions properly. This part of its work the University should delegate to its own branch organisation in the district, the district educational council, which will represent the best talents of the district and send up a member to the University. This member, and other local members of the University from local colleges and schools, will be in this district council and they will do the University's work in the district in co-operation with the best local talent and official experts and inspectors. The amount of grants-in-aid for high schools in the district will be handed over to the district council for administration. This council will decide the financial necessities of local schools and submit its recommendations to the University as regards the conditions and equipment of fresh schools seeking affiliation. There already exist in the district two separate organisations—the district committee of public instruction and the educational committee of the district board—and they should both be amalgamated into one district education council, at once responsible to the University for high school education and to the district board for primary school management. It is the University that shares in part the responsibility for high school education and college education. It is an organisation intended for that purpose. Let the University, therefore, fully assume this responsibility and exercise it with the fullest confidence. As regards grants, inspection and inauguration of colleges, the University will work through its own organisation, the college education board, with the University's own inspectors of colleges. As regards high schools the University may have inspectors of its own or, for this part of the University's work, the official inspectors of schools will be responsible to the University's branch organisation, the district educational council.

In this connection, I may mention here that the great defect of the existing University management exercising jurisdiction over a considerable area is the absence of a connecting link with the country abroad, and the result is that the University's work does not arouse enthusiasm in the country and the University's need does not appeal to the people in the country. An institution like the University of Calcutta is no closed-door teachers' hall, but it is responsible for the advancement of learning amongst seventy millions of people over an extensive area. It therefore stands eminently to reason that it must have its district branches and district representatives. As it is, the people in the corner of a district may feel great enthusiasm for a new institution and send a representative to Calcutta. He does not know to whom particularly he should make his appeal. The metropolitan busy man is not likely to feel the same enthusiasm for him, and his petition is referred to the man on the spot, the inspector of schools, for want of a more responsible organisation. There is, no doubt, a salutary provision that the University may ask for a report from other persons, too, but this is never resorted to. The inspector is Government's educational expert of the West accustomed to costlier ideals of high school life and it is little wonder that the village site of Bengal looks wild to him. The site, the building, the playground, the hostel, do not always meet with his full approval and, slowly, the organisation of a school has become a matter of Rs. 15,000—Rs. 20,000 where it was Rs. 2,000 or Rs. 3,000 before. A village school with its limited communications can serve, at most, an area of three or four square miles, and the expenses up to the standard of approval have grown beyond the capabilities of many an area. Similarly, the organisation of a college has become a matter of lakhs and is beyond the capabilities of many towns, too. The expenses may, no doubt, mean a better start in educational equipment, but they mean loss in educational energy and limitation in educational advancement as well, and all this because the University responsible for high school and college education had not its own responsible organisations. And let us remember in this connection, our Imperial father's

DUTT, REBATI RAMAN—*contd.*—DUTTA, PROMODE CHANDRA—European Association, Calcutta—GEDDES, PATRICK—GHOSE, The Hon'ble Rai DEBENDER CHUNDER, Bahadur—GHOSE, Sir RASH BEHARY.

will to see a network of schools and colleges throughout the country and to see his children's Indian homes cheered with education. Let the University remember this and rise supreme in its efforts with its fullest responsibilities exercised all by itself through its own organisation. The altered relationship between Government and a university like the Calcutta University need not in any way be strained and inharmonious. The University's first and foremost concern will be with the Provincial Government, and the Government of India should delegate all its powers to local Governments as regards a local university or universities.

DUTTA, PROMODE CHANDRA.

The University should be practically an autonomous institution. The senate should consist of 120 members :—

30 nominated by the chancellor (including *ex-officio* members).
30 elected by the professors of colleges from amongst themselves, each first-grade college having one representative on the senate and each second-grade college getting a representative every three years.
30 by registered graduates.
30 by the faculties.

The Government of India should have nothing to do with the University. The Bengal Government should have the power to veto any measure for three years, but, if the senate should insist upon it, thrice in consecutive years (once every year) it should automatically become law.

In order to secure representation of experts in all subjects in the senate the syndicate should determine in which subjects specialists are necessary each year.

The senate should contain experts, and also successful lawyers, engineers, doctors, merchants, artists, poets, and politicians.

European Association, Calcutta.

The Government of India should cease to have direct control over the Calcutta University. The chancellor should be the Governor of Bengal.

GEDDES, PATRICK.

The best relations between any Government and the universities of its country are exemplified by those of its religious neutrality. I should hope much from changes in this direction. I have already given examples from various countries pointing thither; and I cannot imagine any British university desiring increase of State control, and certainly not towards present Indian standards. (See my answer to question 5.)

GHOSE, The Hon'ble Rai DEBENDER CHUNDER, Bahadur.

When the Provincial Government of Bengal becomes autonomous the University of Calcutta should be under the sole control of that Government.

GHOSE, Sir RASH BEHARY.

Government should have no powers of interference with the University in academic matters.

GHOSH, BIMAL CHANDRA—GHOSH, DEVAPRASAD—GHOSH, JNANCHANDRA—GILCHRIST, R. N.

GHOSH, BIMAL CHANDRA.

This relation can be indicated briefly by saying that the University is to be primarily a federation of colleges administered by the representatives of the colleges, but helped by a few nominated fellows, and controlled in ultimate questions of policy and finance by the Provincial Government. The representatives of the colleges, and college electorates, should always be in a distinct majority. The University should not be treated as a department of the Government or an adjunct to a department.

GHOSH, DEVAPRASAD.

Government should interfere as little as possible with the normal working of an educational body like the University. The grant which Government allots annually to the University should, of course, be retained, and may even be increased, if finances allow, because it is the duty of every Government to provide for the higher education of its subjects; but the normal administration of the University should be left wholly in the hands of the people, whose elected representatives should compose the senate. It is under a policy of *laissez-faire* that universities thrive best; and the cardinal principle of university administration ought to be the extension and improvement of education unfettered by any political prepossessions.

As matters stand at present the senate is made up of 100 ordinary fellows, no less than 80 of whom are nominated by Government, 10 being elected by the faculties, and the remaining 10 only being elected by the graduates of the University. Practically, therefore, the Calcutta University is an officialised University.

My idea is that there should be no member nominated by Government among the ordinary fellows. I would suggest the following constitution :—

The principals of all first-grade colleges should be *ex-officio* members of the senate. Teachers and professors in each college who have been engaged for a period of ten years or more in educational work should choose some representatives among them (the number to vary according to the strength of the requisite qualified staff in each college); and these representatives will be members of the senate. The rest of the senate is to be elected by the registered graduates and by the faculties.

In a word, just as the working of the University should be normally free of official domination, similarly, it ought also to be free from lawyers' control. The University ought to have an adequate representation of the interests of the educational institutions which are affiliated to it.

GHOSH, JNANCHANDRA.

The relation of the Government of India and of the Provincial Government to the University should be different from what they are now. The Secretariat should have no opportunity to interfere in academic matters—in other words, the University should be autonomous.

GILCHRIST, R. N.

In the scheme which I advocate I consider that, on historical grounds, the Government of India should continue in its present position towards the Calcutta University, and that the Government of Bengal should occupy a similar position in respect of the other universities.

The peculiar position of the Governments in this country in regard to finance makes it imperative that they should have some sort of control over the universities.

GILCHRIST, R. N.—*contd.*—GOSWAMI, BHAGABAT KUMAR, Sastri.

The nature and extent of the control must be determined by the worth of the University itself. A university which pursues honest educational ends will essentially be more autonomous than a university which is influenced by either personal or political ends. I have already argued how the meaning of autonomy may vary according to this point of view. A well-managed State university would be far more autonomous than a badly-managed private university. The latter is a danger both to itself and the State.

My general view in relation to State control is that in the present position, and for many years to come, Government must exercise a more or less definite control. The control will gradually disappear or pass into desuetude with the growing *virtus* of the universities. Government, at present, however, is not only the endowment source; it is also, to a certain extent, a guide (I presuppose that our future Governments will be organised on lines which will provide for the best criticism and advice. The struggles of the present University with the Government of India may, or may not, have reflected invariable credit on the Education Department. I simply state that if the Education Department is to guide, as I consider it should do, it should be so constituted as to guide efficiently). Government has stability, too, and is trusted by the people. Its financial position, however, will make its right to interfere in university matters real for many years to come. With a growing public consciousness, leading to disinterested endowments for the University, the claim of Government to control will largely, and rightly, disappear. Till, however, educational ends supersede other ends I cannot see how Government can give the autonomy which Western universities possess.

The quality of control, of course, depends on the type of Government. Government may be content to give educational grants to an institution which may be largely political. No control will be necessary on the part of Government in such a case. Taking Government, as instituted at present, I do not see how it can renounce control over the universities if its educational grants are to be spent for purely educational schemes.

I, therefore, advocate that in each university the Government responsible should nominate definite officers, these officers to be educationists. This procedure is not characteristic of India alone. The Haldane Commission definitely recommends it for the reconstructed London University. The independent Scottish universities are staffed largely by nominees of Government, though Government control practically ends with the appointment. The procedure adopted in the Patna University, that of Government bearing the recurring expenditure of the vice-chancellor and registrar, might be adopted in all these universities, the sums thus given being included in the total Government grant each year to the University.

Another function must be performed by Government—what I may call the *neutral* function. I can see no way, save by Government control, of securing the proportionate representations of sectional interests, *e.g.*, of Muhammadans. Though such "forced" representation may not be ideal from the point of view of education it will be necessary politically. No agency can hold the balance between these interests but Government.

GOSWAMI, BHAGABAT KUMAR, Sastri.

The University should gradually become more and more autonomous but, at the same time, it should be made really responsible to the country, and its constitution should have a genuine representative character. Until that consummation is reached the local Government must stand between it and the people, and should exercise a strict financial control, especially to check its ruinous extravagance, as is apparently the case now in its distribution of patronage. In any eventuality, the permanent function of the local Government in relation to the University will be to co-ordinate its ends with those of the other departments of the State. The Supreme Government must always reserve the right to interfere in matters connected with the political interests of the State.

GOSWAMI, Rai Sahib BIDHUBHUSAN—GUHA, JITES CHANDRA—GUHA, RAJANIKANTA—GURDON, The Hon'ble Lt.-Col. P. R. T.

GOSWAMI, Rai Sahib BIDHUBHUSAN.

The Government of India and the Provincial Government should be patrons and benefactors of the University, with the power of controlling it if it drives devious. But, as a general rule, they should not interfere with the internal management of its affairs.

GUHA, JITES CHANDRA.

I should think that the Governor of Bengal ought to be the chancellor of the Calcutta University, and the vice-chancellor should always be an Indian elected by the members of the senate and his term of office should be five years, and not two only, as at present. I would confine the powers of Government to a general supervision and periodical examination of the accounts of the University. The University should be the final arbiter in affiliating or disaffiliating a college, in founding chairs, lectureships, and readerships. Government will have no power of interference in these respects. The control of the colleges and their students must rest with the University. Government will not be able to reach the colleges and the students except through the University.

GUHA, RAJANIKANTA.

The relations of the Government of India and of the Government of Bengal to the Calcutta University should continue to be as they are at present, with certain modifications. The Government of India should have the right of interference in extreme cases; but that right should not be exercised on ordinary occasions; and in its internal affairs the University should be autonomous.

GURDON, The Hon'ble Lt.-Col. P. R. T.

I propose to confine myself to answering, to the best of my ability, questions 14 and 22 in the list circulated by the Calcutta University Commission, as the subjects covered by these questions came under my notice specially at the time I represented the province of Assam as an official member of the Imperial Council. The particular occasion when the matter of the control of the Calcutta University came under my notice was when the Hon'ble Mr. Surendra Nath Banerjea proposed the following resolution in the Imperial Council on the 22nd March, 1916:—

> "That this Council recommends to the Governor-General in Council to consider the advisability of placing the University of Calcutta on the same footing with the Universities of Madras and Bombay in respect of the relations between the Calcutta University and the head of the local Government for purposes of administration and control."

In the course of the debate which took place in the Imperial Council on that occasion I endeavoured to show that the proposed transfer of the control of the Government of India over the University, which is conferred by the Act of Incorporation, the Indian Universities Act (Act VIII of 1904), the regulations, and the powers conferred by the Universities Act of 1904 on the chancellor is a matter in which the province of Assam is vitally interested and, in this connection, I venture to refer to the speech delivered by me in Council, which is reported on pages 373 and 374 in the *Gazette of India* of the 1st April, 1916, as also to the speech of the Hon'ble Rai Ghansyam Barua Bahadur (pages 379-381, *ibid*). The subject of this debate is directly relevant in connection with question 14. It may be stated briefly that, should the transfer of the control from the Government of India to the Government of Bengal take place, and should the Governor-General cease

GURDON, The Hon'ble Lt.-Col. P. R. T.—*contd.*

to be chancellor, the interests of Assam may be very severely prejudiced unless adequate steps are taken to safeguard Assam, and especially Assamese, interests. The interests which I wish to notice are those of the Assamese language and literature to which the Hon'ble Rai Ghansyam Barua Bahadur referred in his speech. What was the effect on the Assamese language of the administration of the Government of Bengal when Assam formed a portion of that province has been very clearly described by the Rai Bahadur in his speech, *i.e.*, how Bengali supplanted Assamese in courts and schools, and how it was that, only after a long struggle, Assamese, through the good offices of Sir George Campbell, was able to reassert itself. Now, should the transfer of control take place it is not improbable that history may repeat itself and Bengali may seek once more to dominate Assam. It may be argued, perhaps, that there is no danger now in more enlightened times of such an event taking place, but, if present public opinion in Bengal, as reflected by the Press, is any guide, it would seem that the desire to deprive the Assamese of their language continues, as evidenced by the quotation from a leading Bengali journal contained in the Rai Bahadur's speech at the foot of page 380 of the printed record of the debate in Council. I may quote another instance of Bengali feeling against the Assamese language; a prominent Bengali journal stated quite recently that Bengali is the language which is spoken at Gauhati, which is the headquarters of the Assam Valley division, where none but Assamese is spoken except by a few domiciled Bengalis and other foreigners. It is misrepresentation such as this which shows that Bengali feeling against the Assamese still perseveres, and that it is endeavouring to reassert itself. The regulations provide for the recognition of Assamese, as well as Khasi, for the matriculation examination (pages 118 and 119), for the intermediate examination in arts (page 144), and for the examination for bachelor of arts (page 157). Such recognition was not obtained without a very keen and prolonged struggle; and, had it not been for the powerful advocacy of Sir Bampfylde Fuller, I believe I am right in saying this, I do not think that recognition would have been accorded to the Assamese language by the University. Should, therefore, the transfer of the control take place it is imperative, in the interests of the Assamese, to see that the *status quo* regarding the recognition of their language is maintained. Then arises the point as to how Assamese interests are to be safeguarded. At present, Assamese interests are safe in the custody of the Government of India, a disinterested body which may be trusted to do justice in all matters to Assam but, should the transfer of control take place, the Government of Bengal, especially should provincial autonomy be conceded to that province, would not be disinterested, and the senate of the University might easily vote by a large majority that the Assamese language should be recognised no longer in schools and colleges over which the Calcutta University holds control. The present representation of Assam on the senate, which may be stated at once to be jejune, would be powerless to prevent such a catastrophe. The Hon'ble Sir C. Sankaran Nair in his speech in Council during the course of the debates already mentioned gave us some indication of what we may expect if the transfer of control comes off when he said:—"It was stated by one of the hon'ble members that, so far as the appointment of fellows is concerned, it is eminently desirable that the Government of Bengal should be the final authority, instead of the Government of India, as the Government of Bengal is more in touch with the men available for appointment of fellows than the Governor-General here is likely to be. That may be so, but my hon'ble friend has also noticed the objection that the Governor of Bengal may not be able to pay the same attention to the claims of provinces outside Bengal, like Bihar and Orissa and Burma." The hon'ble member did not mention the case of Assam, possibly because it is too small a province to be considered, but I would venture to urge that even a small province like Assam which contains some seven millions of people is also worthy of consideration, and that if a Governor of Bengal would be unable to consider the interests of Bihar and Orissa and Burma, which are large provinces, *a fortiori* he would be unable to consider the requirements of little Assam. Another great danger which seems to threaten us seems to be that, with a possible changed administration in the province of Bengal and with the portfolio of education in charge of, possibly, an indigenous politician, the Governor, as chancellor, even if he had the mind to do so, would be practically unable to do anything to safeguard the interests of Assam. I venture to think, therefore,

GURDON, The Hon'ble Lt.-Col. P. R. T.—*contd.*—HALDAR, Dr. HIRALAL—HAQ, Khan Sahib Maulvi Kazi ZAHIRAL—HARLEY, A. H.

there is a strong case for maintaining the *status quo* with reference to the power of the Governor-General as chancellor, and of the Government of India, in their control of the Calcutta University, as regards Assam. In this connection, I may observe that even Mr. Banerjea advocates this partly (see pages 388 and 389 of the hon'ble gentleman's speech). I refer particularly to the portion in which the hon'ble gentleman proposes that the powers of the chancellor regarding institutions which lie outside the boundaries of the province of Bengal should not be delegated to the rector. But Mr. Banerjea's proposal does not go far enough. What I venture to think that Assam wants is that the Government of India should retain its statutory power as to approving, or disapproving, any regulations which may be framed by the University; and, in conclusion, I would strongly urge that this power be retained as regards any university regulations affecting the province of Assam. A further point which should be briefly alluded to is the present inadequate representation of Assam on the senate of the University. The present representation consists of the following gentlemen :—

The Director of Public Instruction,
The Hon'ble Mr. Abdul Majid,
Mr. F. W. Südmersen, and
Mr. A. C. Datta, } Ordinary fellows, nominated by the chancellor.

There is not one representative of Assamese Hindus, who form the bulk of the Assamese population of the province; this is a defect which, I venture to think, should be remedied as soon as possible. This defect would not give Assam representation on the syndicate, which seems to be the real thing wanted; but how this can be remedied when the syndicate is elected by the senate I fail to see.

HALDAR, Dr. HIRALAL.

The University of Calcutta should be under the Government of Bengal. I am not in favour of dispensing with the official element in the senate. Government should have general control over the University, but should not interfere with the details of administration, such as the appointment of professors, determination of the courses of study, etc. Government should retain its present power of nominating fellows, but should be guided, as far as possible, by the recommendations of an advisory board, consisting, say, of the vice-chancellor, the president of the post-graduate council, and one or two other members. I am strongly against any extension of the elective principle. I am even prepared to suggest that the right of election at present enjoyed by registered graduates should be taken away. Few self-respecting persons, unless they are men of great eminence, have the chance of being elected under the present system. Whole-time university lecturers should be adequately represented on the senate. At present, they are almost unrepresented.

HAQ, Khan Sahib Maulvi Kazi ZAHIRAL.

Government in its present form, or in whatever shape it may be framed in future, should have an effective control over the University.

HARLEY, A. H.

It is desirable that a university should be autonomous as regards ordinary procedure. All matters conforming with the regulations, as approved by Government, should be within the province of the University authorities. At the same time, Government should bind the University more closely to itself. Such Government connection is more able than any other form of constitution to guarantee the academic atmosphere.

There should be a board of education consisting of the provincial member for education as *ex-officio* president, the Director of Public Instruction, the vice-chancellor of the University, and at least two others, one of whom should be a Hindu and one a Mussulman, and to them the following should be referred for consideration, before the final sanction of the rector or chancellor :—

Appointments to the tutorial staff.
Matters of policy.

The chancellor and the rector of the University should be, as at present, the Viceroy and local Governor, respectively; the vice-chancellor should be a whole-time officer paid by Government and, preferably, a distinguished member of the University staff, otherwise a distinguished Government official.

The provincial board of education would be competent to deal with provincial questions; matters of general policy affecting Indian universities in general might be referred to the member for education in the Government of India.

HOLLAND, Rev. W. E. S.

I think some control by Government is at present a healthy and useful corrective influence.

HUNTER, MARK.

I do not think that the Government of India should have direct control of any university, or that the relations between any Indian university or universities on the one hand and the Government of India on the other should be closer than the relations between the Government of India and the remaining universities. In particular it is desirable that the Government of India should not directly control a group of universities, since such control would be likely to lead to a uniformity of treatment, without value in itself, and liable to favour a levelling down of standards.

If the question include the larger subject of Government control of Indian universities I would say very emphatically that, unless the Indian universities continue to be assured of Government protection and control, that is to say, unless Government continues to nominate the great majority of fellows in University senates, and continues to reserve to itself all the powers vested in it by the Act of 1904, nothing but steady deterioration in our universities is to be looked for.

HUQ, The Hon'ble Maulvi A. K. FUZLUL.

I would suggest absolute autonomy for the university or universities of every province, particularly for Bengal.

HUQUE, M. AZIZUL.

In the scheme I have suggested I would reduce the interference of Government to as small a minimum as possible, except that Government should finance generally or specifically. It is an insult to the collective wisdom of a body of responsible men of the University, and it is an undignifying sight to see the University and Government almost fighting together. Political considerations should not be the determining factor in the management of University affairs—a factor which is often the prime consideration if finality rests with Government. The presence of the very strong element of Europeans ought to be a sufficient guarantee for any scepticism that might otherwise creep in. At the same time, I must say that, in a system of government where power entirely lies with persons other than the sons of the soil, I would reduce the points of friction to as few as possible as being best for all parties.

IMAM, The Hon'ble Justice Sir ALI—IRFAN, Maulvi MOHAMMAD—IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI—JONES, T. CUTHBERTSON.

IMAM, The Hon'ble Justice Sir ALI.

The education of the youth is now universally recognised as one of the most important functions of the State. Education must necessarily be a department of spending. It is not practicable to carry on State education on the basis only of the fees obtainable from students. It is notorious how little the Government of India spends compared with other civilised Governments. Government grants under this head must be made larger and larger every year, and education should be carried on with the idea of fitting the young citizen for the battle of life which lies before him. The question of fitting the young citizen for his future responsibilities should be understood intelligently, and with a view not merely to the development of the various phases of nationalism, but with a view also to the international position. Every country has to be as much self-contained as possible. The international position of the future, as of the present, is terribly illustrated for us in the great world-war which has been raging for the last three years. In this terrible struggle only such nations will ultimately succeed as have carried on successfully the development of their resources both by developing their own natural resources and the intelligence of the units that compose the nation. Education is treated by the Government of India at present as one of the secondary departments of the State. This is the defect not merely of the Government of India, but also that of Great Britain. The great world-war should change our angle of vision in this respect if we can hope successfully to avert a similar disaster in the future. With this light before us, the Government of India should take up the problem of education more earnestly and give to the Provincial Government more money and better men to carry on the task.

IRFAN, Maulvi MOHAMMAD.

The Government of India and the Provincial Government should have more control over the universities than at present.

IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI.

So long as the right of nominating fellows is vested in Government the complaint that the University does not properly represent the educational aspirations of the country must continue. As far as possible, the senate of the University must be an elected body. When this suggestion is carried out I would say that the interference of Government should be restricted to within very narrow limits. In all matters of internal management Government should have no voice, and it should be made clear that the regulations of the University must be given effect to, unless vetoed by Government for good and sufficient reasons, and that they need not be hung up until sanctioned by Government. In the appointment of university professors, lecturers, and readers the University should have a final voice.

JONES, T. CUTHBERTSON.

I think that the Provincial Government should, subject to approval by the Governor-General, draw up the necessary scheme for a university or universities of a province such as Bengal, and it should also be the duty of the local Government to enforce the University Act and rules. The senate of the University, when constituted in accordance with the Act, should be empowered to draw up the University regulations, which should be sanctioned by the local Government before coming into force. Further, the local Government should, subject to the approval of the Governor-General, be empowered to levy fresh taxation for the maintenance of the University or universities. The Governor or Lieutenant-Governor of the province should be *ex-officio* chancellor of the University,

JONES, T. CUTHBERTSON—*contd.*

and any changes made by the senate in the regulations should be submitted to the local Government for approval. The local Government should audit the accounts of the University annually.

In the first instance, half of the fellows composing the new senate might be nominated by Government and the remainder elected by the existing senate, faculties, and registered graduates, in such proportion as Government might direct, always provided that at least half of the fellows were directly engaged in educational work, and that each fellow should hold office for a term of years, say three, after which he would be eligible for re-election or renomination. As time went on the ratio of elected to nominated fellows could be increased at the discretion of the local Government.

Teaching and unitary universities should not be staffed wholly, or in part, by members of the Indian educational service, although members of that service having the necessary qualifications might, if necessary, be drafted into university service, their emoluments thereafter being paid by the University, or contributed by Government to the University chest. My reasons are as follows:—

(*a*) I agree with letter No. 866, of the Government of India, dated the 6th October, 1917, when it says:—"Should this line of policy (*i.e.*, the teaching as distinguished from the affiliating, university) be developed in future it is urged that the establishment of a Government service, with its regular conditions of pay, prospects, promotions, and transfers, will not be consistent with the needs and requirements either of new unitary and teaching universities or of reformed affiliating universities. If universities are to conduct certain forms of teaching they should, obviously, do so through the agency of their own professors, and not through the members of an outside service."

(*b*) A professorship should be the reward of successful experience in teaching and of research work. The members of the Indian educational service must, almost of necessity, be appointed young before they have had the time for much original work. They are, in fact, lecturers, not professors.

(*c*) So far as I know no university in the British Empire outside India is staffed by members of a Government service responsible to an outside department of education.

What would the principal of any university college in Great Britain think if he had to apply for funds to, and was subject to inspection by, the head of the department responsible for the maintenance and supervision of elementary schools?

(*d*) At present, Government tends to concentrate its attention upon Government colleges, upon which considerable sums are spent, grants being given to aided colleges also, but not in sufficient amount in the absence of public endowments to bring them within reasonable distance of Government institutions as regards equipment or apparatus. Thus, while a few Government colleges reach a high standard of efficiency, the aided and private colleges, which form the great majority of the institutions affiliated to the University, are frequently in a deplorable condition. The University should be directly responsible for the maintenance of all her constituent colleges, and should regard them all equally as her children, while the students and teachers of the various colleges in a teaching university should regard themselves as members of a fraternity devoted to the cause of truth and human progress.

I would, therefore, insist:—

(i) That the University, and not the Department of Education, should, subject to the local Government, make university appointments.

(ii) That upon transfer to a university a Government servant should cease to be a member of the educational service, and become a member of the university staff, even though his pay and pension might remain the same as if he had continued in Government service.

(iii) That the University should be free, subject to the regulations of Government in this behalf, to appoint professors, lecturers, and demonstrators from India or Europe, "irrespective of age, creed, race, or departmental claim", always

provided that in the same grade no distinction be made as regards emoluments between persons recruited from Government service and persons recruited from other sources.

In a word, teaching and unitary universities should be self-contained, though financed by Government. Recruiting to the collegiate side of the Indian educational service would become less, and finally cease, as more and more teaching universities come into existence.

KAR, SITES CHANDRA.

The Government of India need have no control over the University. As a provincial concern the local Government should exercise a sort of general supervision by way of veto.

KARIM, Maulvi ABDUL.

The universities should manage their own affairs. Outside interference, I think, hinders their development. A limited power of veto might, however, be reserved for the head of the Provincial Government.

KARVE, D. K.

The universities should not be in the leading strings of Provincial Governments, as at present. The head of the province should be the chancellor of the University. But a large majority of the members of the senate should be elected members, and, not nominated, as at present.

KHAN, MOHOMED HABIBUR RAHMAN.

The Provincial Government should be in supreme charge of the University and the Imperial Government should not be given any opportunity of real interference in the affairs of the University.

LAHIRY, RANOJIT CHANDRA.

The University should be entirely popular. All sectarian, racial, and other ultra-educational considerations should be excluded from the policy of the University. The educational service, should be under the control of the university. Appointments and transfers now made by Government should be made on the recommendation of the University as is done in the provincial judicial service on the recommendation of the High Court. There should be fixed a substantial grant by Government to the University which should be financially, as in other respects, quite autonomous.

LANGLEY, G. H.

In all academic matters the University should be entirely free from the control both of the Government of India and that of Bengal. Professors should not be members of a Government service, but appointed, with adequate safeguards, to special posts in the University.

LUCAS, Rev. E. D.—MAHALANOBIS, PRASANTA CHANDRA—MAHASAI, KUMAR KSHITINDRADEB Rai—MAHTAB, The Hon'ble Sir BIJAY CHAND.

LUCAS, Rev. E. D.

The connection of the Government of India should be very general in character. But I think each Provincial Government should strive to have the closest and friendliest relations with the University as possible. Government experts and University experts might form, in a measure, a common body of the most gifted men in the community who would stimulate and guide thought, research, investigation, and even help in the promotion of industrial and technical enterprises.

MAHALANOBIS, PRASANTA CHANDRA.

The control of the *Government of India* should be indirect; their sanction should be necessary before any changes in the constitution of the University come into operation.

The *Government of Bengal* should nominate a certain number of members on the supreme governing body of the University, but such members should not be in a majority.

Grants should not be earmarked as a rule, and the University should be allowed a considerable degree of freedom in making up its own budget.

The immediate control of Government colleges should be transferred to the University, though Government should retain some direct control in the form of nominated members on the delegacies.

In practice, Government would always retain effective final control in the form of its control over State grants. In addition, Government would, of course, also retain final statutory powers over University legislation.

MAHASAI, KUMAR KSHITINDRADEB Rai.

In view of the fact that the Calcutta University exercises jurisdiction over colleges situated not only in Bengal proper, but also over those in other sister provinces outside Bengal, *viz.*, Burma and Assam, I should think that the absolute control of the University should be with the Government of India, the Bengal Government exercising general supervision over the working of the University. The University may be given restricted autonomy in cases specifically defined. Preferment, and the right of patronage, should be in the hands of the Government of Bengal, subject to the final sanction of the Government of India.

The arguments advanced in some quarters in favour of interference by the Government of India in extreme cases only, and not in general, are without substance on the point of the analogy that the Government of India exercises jurisdiction over the High Court of Judicature at Fort William in Bengal, and not the Government of Bengal, in all its administrative affairs.

When, in time, Burma and Assam will be favoured with universities of their own, and the educational interests of Bengal proper will be the matter of sole concern for the University of Calcutta, the question of His Excellency the Governor of Bengal becoming the chancellor of the University may then opportunely be taken up and successfully solved. It is, at present, idle to hold that the control of the University should be taken from the Government of India and be vested in the local Government. Educational problems in general should be controlled by the Government of India not only in Bengal, but also in all other provinces. It is desirable that the Government of India should be the sole controlling body in important matters like these.

MAHTAB, The Hon'ble Sir BIJAY CHAND.

The internal management of the affairs of the University, or its educational administration, should be free from all interference by Government, but the Provincial Government should have a hand in the financial control of the University. Model institutions, as may be recommended by the University, should be established and

MAHTAB, The Hon'ble Sir BIJAY CHAND—*contd.*—MAITRA, AKSHAY KUMAR—MAITRA, GOPAL CHANDRA—MAITRA, HERAMBACHANDRA—MAJUMDAR, RAMESH CHANDRA.

maintained by Government, and Government should help the University with necessary funds in the matter of researches. Government should meet all these expenses from provincial revenues and will be the final authority in deciding upon the amount of its contribution in these respects. The Governor should be the chancellor of the University. The Imperial Government should, ordinarily, have no concern with the University except in finally deciding upon large grants that are likely to affect Imperial revenues.

MAITRA, AKSHAY KUMAR.

The relations of the Government of India and of Bengal should be those of beneficent donors, with power to nominate a limited number of fellows so as not to interfere with the real autonomy of the University in regulating the advancement of learning according to the practical needs of the country. The time has come when university education may, with advantage, be left in the hands of the University and local governing bodies of colleges without the double government of a department of public instruction. The governing bodies of colleges should, for this purpose, include local men of light and leading.

MAITRA, GOPAL CHANDRA.

The final decision on all academical questions like the affiliation of colleges and the appointment of University professors should rest with the University. The Government of India should have a right of veto but, except when the decisions of the University are clearly unconstitutional or illegal, this veto should not be exercised.

MAITRA, HERAMBACHANDRA.

I should be loath to see the Calcutta University deprived of the distinction it has hitherto enjoyed of being directly under the Government of India, with His Excellency the Viceroy as chancellor.

The composition of the senate should be altered so as to give professors of colleges the right to elect a considerable proportion of the members of the senate from among themselves. At least half of the total strength of the senate should consist of members elected by professors and by graduates.

I beg to invite attention to the fact that, prior to the passing of the Indian Universities Act of 1904, the universities enjoyed rights which have been curtailed by the Act referred to above. This was a retrograde measure. Government should follow a more liberal policy, and we should be allowed to enjoy a much larger measure of self-government in the organisation and control of education. Government should not interfere in the internal administration of the University except when such interference may be necessary to prevent the abuse of trusts and endowments created for the spread of education, or for stimulating research, or to prevent teachers from abusing the confidence reposed in them by the University and the public by inciting students to acts of lawlessness and violence. There should be no interference with the legitimate exercise, on the part of professors, of that freedom of thought and judgment without which there can be no development of a healthy intellectual atmosphere.

MAJUMDAR, RAMESH CHANDRA.

The University should be completely independent in purely academic affairs, such as the framing of courses, appointment of professors, changes in syllabus, recognition or disaffiliation of colleges, etc.

Government should have only a general power of supervision over the management of the University.

MAJUMDER, NARENDRAKUMAR—MASOOD, Syed Ross—MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN—MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur—MITRA, RAM CHARAN.

MAJUMDER, NARENDRAKUMAR.

There should be absolutely no interference from any Government—Provincial or Imperial—unless, and until, the universities convert themselves into political bodies. The traditions of the country remind us of the past when the *Grahman*, the then ministers of education, received grants in land and resources from the king who, however, did never make that a pretext for interfering in any way with their duties or methods of teaching. The key-note was mutual trust.

MASOOD, Syed Ross.

The Provincial Government should be in supreme charge of the University, and the Imperial Government should not be given any opportunity of real interference in the affairs of the University.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN.

I am strongly opposed to the officialisation of universities. It has a tendency to subordinate education to politics and disturb the atmospliere of pure education. It is the duty of every civilised Government to foster education; but it by no means follows that because a Government pays for education it should also have control over education. The Governor-General is the chancellor, and the Governor of Bengal the rector of the Calcutta University. Beyond this, neither the Government of India nor the Government of Bengal should have any connection with the internal administration of the University. The vice-chancellor should be elected by the fellows of the University from among their own number.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

The colleges and schools and all teachers and professors should be under the control of the University.

The Director of Public Instruction should be subordinate to the University. All educational grants given by Government should be handed over to the University and the members of the syndicate should have a free hand in framing budgets on all educational matters. Of course, the suggestions of the Provincial Government may be taken into account. The management of the University and the appointment or dismissal of teachers and professors ought not to be controlled by the Government of India.

Each college or school should have a governing body. The members of this governing body will frame rules and make arrangements for imparting education suitable to colleges, and also by the members of district boards and municipalities. An elected member of the governing body would hold his office for three years. The governing body will frame rules and make arrangements for imparting suitable education according to the circumstances and needs of the place in which the school or college is situated. These rules should be subject to correction by the members of the syndicate of the University. The members of the senate and the syndicate should be elected by the members of the governing body of all colleges and schools. There should be a fixed number of representatives from each district. The vice-chancellor of the University should be elected by the members of the senate.

MITRA, RAM CHARAN.

The universities in Bengal should be under the sole control of the Provincial Government, but in matters financial they must be under the Government of India.

MITTER, Dr. DWARKANATH—MITTER, The Hon'ble Mr. PROVASH CHUNDER—MUKERJEE, ADHAR CHANDRA—MUKERJEE, RADHAKAMAL—MUKHERJI, PANCHANANDAS—Murarichand College, Sylhet—NAIK, K. G.

MITTER, Dr. DWARKANATH.

Hitherto, the University of Calcutta was under the direct control of the Government of India. After the creation of the presidency of Bengal and the removal of the Imperial capital to Delhi the direct relationship of the University with the Government of India leads to certain disadvantages. The great distance of Delhi or Simla from Calcutta has resulted in the loss of that intimate touch of the Government of India with the University which used to exist prior to 1912. It is true that the arrangement may result in the loss of that pre-eminence which the Calcutta University has all along enjoyed by its having His Excellency the Viceroy as chancellor, but this would be compensated for by expedition in the work of the University. As in the other presidencies His Excellency the Governor of Bengal may be the chancellor of the Calcutta University and the Chief Justice of Bengal may, *ex officio*, be the rector of the University.

MITTER, The Hon'ble Mr. PROVASH CHUNDER.

The present relations of the University with the Government of India should cease and it should have direct relations with the Provincial Government.

MUKERJEE, ADHAR CHANDRA.

The University should be autonomous, and interference by the Secretariat in academic matters should not be allowed.

MUKERJEE, RADHAKAMAL.

The University should enjoy complete autonomy in its management and administration. The appointment of professors and the prescription of courses should be entirely in the hands of the University. The Government of India should act as an advisory body, inspiring educational policies and suggesting educational methods.

MUKHERJI, PANCHANANDAS.

So far as the University of Calcutta is concerned, if it cannot be made an autonomous corporate body like the universities of Oxford or Cambridge, I think then that the present relations of the University to the Imperial Government should continue.

Murarichand College, Sylhet.

The Government of Bengal should be the final authority, though the University should enjoy practical autonomy in the management of its affairs.

NAIK, K. G.

University organisations should have as much freedom as possible. They should be free from officialisation. A more elective element should come in, rather than that of nomination. The Government of India and the Provincial Governments should pay freely to the universities and should not hamper the use of grants at every step by technicalities.

NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA—NEOGI, Dr. P.—North Bengal Zamindars' Association, Rangpur—PAL, The Hon'ble Rai RADHA CHARAN, Bahadur—PARANJPYE, The Hon'ble Mr. R. P.

NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA.

Government should look after the general policy and principles of the University, but should interfere as little as possible with its internal administration.

NEOGI, Dr. P.

Owing to the transfer of the capital from Calcutta to Delhi it has become necessary to delegate the powers of supervision and sanction hitherto exercised by the Government of India to the Bengal Government. The Governor of Bengal, for the same reason, should be the chancellor of the Calcutta University in the place of the Viceroy.

There is one observation I would like to make regarding the relation of Government to the finances of the Calcutta University. Government is finding all the money required for the purposes of the Dacca University, both initial as well as recurring, and a similar favour should be shown to the Calcutta University. The principal source of revenue of the Calcutta University consists in the examination fees levied from the candidates and, whenever the University undertakes any ambitious scheme, the examination fees are enhanced in order to find the money for such a scheme (as has recently been done for post-graduate teaching). The Government of India has endowed some research chairs in the University, and has granted a handsome donation of ten lakhs of rupees for the construction of hostels in Calcutta. I would respectfully urge that more liberal financial assistance should be given to the University and, in fact, the University should be regarded as one of the spending departments of Government. For instance, the University can do very little useful work by merely instituting degrees in commerce, technology, and agriculture unless colleges for teaching these subjects are established. The University has no funds for the purpose, and Government should either establish these colleges themselves and maintain them as Government institutions or hand over sufficient funds to the University for the purpose.

North Bengal Zamindars' Association, Rangpur.

The University should be absolutely independent of Government in matters of policy and administration. The head of the Provincial Government will be the chancellor of the University. Mofussil colleges should, as far as possible, be freed from official control.

PAL, The Hon'ble Rai RADHA CHARAN, Bahadur.

The University should be allowed to be managed entirely by men of learning and culture. Government should only aid and generally supervise, with the aid of experts.

PARANJPYE, The Hon'ble Mr. R. P.

As a province advances the University in that province should be more and more independent of Government. The Viceroy or the Governor should continue to remain the chancellor of the University and should have power, under very exceptional circumstances, to hold a judicial enquiry into the finances. If he is of opinion that the affairs of the University are really being mismanaged he may appoint a commission like the present one. The vice-chancellor should be elected, though no objection need be made to the Director of Public Instruction being vice-president of the syndicate, as at present.

PARANJPYE, The Hon'ble Mr. R. P.—*contd.*—People's Association, Khulna—RAHIM, The Hon'ble Mr. Justice ABDUR—RAMAN, C. V.

The Governor should have the power to nominate a small fraction of members to the senate to make up for occasional deficiencies of election but the large majority should be elected by electorates of various kinds. Government may be asked to give its opinion on questions of affiliation, appointments of university professors, etc., if it has any sources of information unknown to the University—and this can best be done through the presence of the Director of Public Instruction on the senate and the syndicate—but the final voice should remain with the University. The reason for this opinion is that people are afraid that the Criminal Intelligence Department is likely to have a large say in such questions if left for final disposal to Government, and I do not like university affairs to be subject to a secret department like the Criminal Intelligence Department. Oxford and Cambridge, and even the modern universities in England, are free from Government interference of this kind and Indian universities should have the same freedom. The contention that Government contributes—and should continue to do so—a large amount to the financial resources of the University and, therefore, should have a large voice in its affairs is altogether unsound. The University should contain all that is most learned and cultured in the province, and it should not be subject to outside interference. It is, in fact, the people's parliament in matters of intellectual advancement and culture, and it is fitting that a certain amount of the people's money should be placed at its disposal.

People's Association, Khulna.

The Government of India should not have any direct relationship with the University, but should have only indirect touch through the Provincial Government regarding matters of constitution and finance. Concerning the general administration of the University the Government of India should not have any power to interfere ordinarily. Formalities now observed should, as far as possible, be abolished. The Provincial Government should have the following power :—

(*a*) To nominate a certain number of the fellows of the University.
(*b*) To receive an annual return of the state of finances and audit accounts.

Government, ordinarily, should not have any power to veto the actions of the University, although the University may be formally requested by Government to reconsider its actions, and to withdraw or amend them, if necessary.

The office of the vice-chancellor should be filled up by election from among the fellows of the University.

RAHIM, The Hon'ble Mr. Justice ABDUR.

The university of a province like Bengal should be self-governing. I do not see why the Provincial Governments or the Government of India should assume any responsibility with respect to its management. Government should lay down the general policy of university education throughout the country, should watch what effect is given to it, and decide between the claims of higher education and other expending departments on the public exchequer. It should see that the allotments to higher education are not wasted or misapplied. As between the Government of India and the Provincial Government the Education Department should be largely, if not entirely, made over to the Provincial Governments.

RAMAN, C. V.

At present, Government nominates a large majority of the members of the senate in this and other universities, and this has not always helped in making the senates more efficient. The representation of teachers, especially of *Indian* teachers, has been most inadequate and, in view of the fact that Indians constitute the overwhelming majority of students, it is a matter of elementary justice and is, moreover, in the best

interests of education that at least 50 per cent of the members of the senate should be *Indian* teachers. The regulations should be so altered as to bring this about, and *then* to give the universities the widest possible freedom in all matters—a freedom that does not exist at present, and the absence of which has hampered educational progress in a most grievous manner.

Another matter which brings the universities into close contact with Government is that of finance. I think that in the framing of the provincial budgets for education the University should have a voice.

RAY, Dr. BIDHAN CHANDRA.

It is a fact that a corporate life cannot grow to its full stature if it is overshadowed by the dominant influence of another corporate existence. The University should be allowed to justify its existence and be enabled to attain its full growth by being given a large measure of freedom. The Government of India should only indicate to the University or universities of Bengal the lines on which it could work and grow in harmony with the other universities in India, and should attempt to bring about co-operation and a certain degree of uniformity of standard in the working of the different universities. The interests and duties of the Provincial Government, and of the University or universities of Bengal, in the matter of education and advancement of learning, must be identical. But the direct charge of carrying out the work should be left to the University. The Provincial Government, either directly or indirectly, through the Government of India, should devote regularly a certain portion of its revenues for the use of the University. The Provincial Government, or the Government of India, should have no direct representatives in the form of nominated members on the senate. Government would be represented on the senate by the member of the executive council in charge of education and the Director of Public Instruction. The Government of India and the Provincial Government might lay down definite rules concerning the different interests that require, from an educational standpoint only, to be represented on the senate; but the members of the senate should always be elected by such constituencies.

RAY, MANMATHANATH.

Government should no longer exercise control over the University in *academic* matters. It is not desirable to perpetuate an old system which was introduced when Government was the only authority in the country competent to judge in such matters. Even the Education Commission of 1882 had recommended the withdrawal of Government from higher education. It is obvious that the decisions of an academic body like the University in academic matters should not be subject to interference by a mixed body like Government.

RAY, SARAT CHANDRA.

The university of the province should be under the Government of the province. The Government of India should have no control over the University of the province, though it might make any recommendations to the University.

RAY, SATIS CHANDRA.

Government should stand to the University in the position of a benevolent adviser, and not as a ruler. It should suggest, encourage, and stimulate, but never attempt to interfere. The University should have the fullest academic control

over the courses of study and the selection of teachers, and the relation between Government and the University should be different from what it is now. To this end the law should be so altered as to have a senate representing educational interests alone, as far as practicable. The senate should enjoy autonomy in the determination of all academic questions. If this view is accepted a corresponding change in the constitution of the Education Department of Government seems to be called for by introducing a greater academic element into, and excluding the civil service element from, its composition. This is necessary to harmonise the workings of the University with the supervision of Government.

ROY, The Hon'ble Rai SRINATH, Bahadur.

The Imperial and Provincial Governments should have as little control as possible over the universities.

ROY, The Hon'ble Babu SURENDRA NATH.

The University of Calcutta should be brought under the Government of Bengal. The Bengal Government should give financial help to the University.

Each province should be autonomous in all respects. Therefore, the proper controlling authority should be the local Government, and not the Imperial Government.

SANYAL, NISIKANTA.

Government should have only the right of veto.

SAPRU, The Hon'ble Dr. TEJ BAHADUR.

I am strongly of opinion that our universities should not be "run" as departments of Government, and that they should be self-contained and fully independent. I would give a predominant voice in the affairs of the University to the expert element but, at the same time, I would have a sufficiently strong representation of the cultured public outside universities. I see no reason why the highest questions of educational policy should be decided, over the heads of educational experts, in the Secretariats of the Government of India and the Provincial Governments. It seems to me that the true progress of education in India is impossible unless it is rescued from politics—official and non-official. It is often the case that an educational question is approached from different points of view by an administrator and an educational expert. But, in a country situated as India is, there is little chance of the educational expert having his own way against the dogmatic opinions of those whose word is final in the determination of all questions of policy. I should not, however, be understood to say that I wish to cut off universities altogether from Government. As Government are, and will for a long time to come continue to be, responsible, to a very great extent, for the finances of our universities, I should like to give them a sufficiently effective voice in their deliberations. But, at the same time, I should not like to constitute Government the final arbiters in matters of real educational work. I think there is great need for a thorough revision of the Universities Act. I am not in favour of an all-India Act. I think each university should have a constitution of its own, and follow its own lines of possible development in the future. I do not see any reason why the office of the chancellor or the vice-chancellor should not be elective. For years past in the

SAPRU, The Hon'ble Dr. TEJ BAHADUR—*contd.*—SARKAR, KALIPADA—SASTRI, KOKILESWAR, Vidyaratna—SASTRI, Rai RAJENDRA CHANDRA, Bahadur—SAYIED, ABDULLAH ABU.

Allahabad University, with the exception of two gentlemen, the office of a vice-chancellor has always been held by one official or another. I have sometimes felt surprised that, while we have some very good professors in our provinces, none of them should have been appointed a vice-chancellor. I have already indicated my views with regard to the question of the affiliation of colleges. Matters of this kind should rest wholly with the University.

SARKAR, KALIPADA.

The Government of India should have no connection with the University in Bengal. The Provincial Governor should be the chancellor of the University. But the official element should not have a dominating voice in the affairs of the University.

SASTRI, KOKILESWAR, Vidyaratna.

The Government of India and the Government of Bengal should only have general supervision over the affairs of the University which should be left, to as large an extent as possible, in the hands of the senate and the syndicate, including the framing of all rules and regulations.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur.

It is a very big question, and cannot be answered within the limits of the present note. Speaking generally, I should like to see the interference of the Imperial and Provincial Governments in the affairs of the University limited to questions of finance, policy, and general supervision. With this reservation the University may be allowed perfect freedom in the management of its own affairs. I should like to see the finances of the University subjected to regular and more stringent control than seems to be the case now.

SAYIED, ABDULLAH ABU.

The present system of dual control over collegiate education exercised both by the University and Government appears to me anomalous. If it be transferred to the former, and men now engaged in teaching in Government colleges are placed under the University as at present constituted, widespread discontent will be the result much to the detriment of the cause of education. Moreover, should any improvement be introduced as a result of this Commission, it is necessary to place some authority over the affairs of the University that can effectually check attempts at lowering the standard. I would therefore, suggest that, considering the present state of the country, collegiate education be controlled entirely by Government, of whatever form it may be in future, which should appoint a paid whole-time vice-chancellor—some educationist of high repute—while all those engaged as teachers in Government colleges and the University be Government servants recruited from among the best available men. Sanction regarding affiliation and power to veto any measure must remain with the Government of India as there is always a tendency to multiply not very reasonable demands for cheap expansion of educational facilities at various centres which Provincial Governments find it difficult to resist. Then, again, the recruitment for educational work, both from local and foreign sources, will continue to be made as necessities arise, with the result that those who happen to be recruited later are confined to centres intellectually too narrow to offer a field for their activities. It seems to me desirable that an option for periodic migration from less to more important universities should be thrown open

SAYIED, ABDULLAH ABU—*contd.*—SEAL, Dr. BRAJENDRANATH—SEN, Rai BOIKUNT NATH, Bahadur—SEN, PRAN HARI.

to all good teachers engaged in collegiate teaching and this, I feel confident, will prove beneficial both to the teacher and the taught. To admit of an easy working of such a system I would advocate that the collegiate side of the educational service be made an Imperial concern and individual migration of members of that service should be made on the recommendation of the Provincial Education Department to which the officer during his posting in a particular province should be entirely subordinate. In making this suggestion I am not taking into account the many private colleges at present existing, but recruitment from the staff of these institutions to Government colleges and universities should be more frequent as opportunities occur.

SEAL, Dr. BRAJENDRANATH.

I have answered this question in part under question 5.

With the constitution of the provincial council of university education, and the "Senatus Academicus" for administering higher education, the question of the relation of Government to such a body can receive only one answer. It is a plan of decentralisation in so far as it seeks to set up an educational council as an intermediary between the State and the individual. The representation of the various interests composing the body politic on this council should be placed on an elective basis, and there should be an adequate representation of Government, viewed either as the central organ of power in the State or as the managing director in the indissoluble partnership and joint concern known by the name of the State. The chancellor and the vice-chancellor should be elected by the provincial council, but the office of the vice-chancellor should be a salaried one. The Viceroy should be patron, and the Provincial Governor visitor, *ex officio*. In course of time, when new universities come to be set up at Dacca and other places, separate educational councils should be constituted, by devolution of functions, for separate spheres of jurisdiction; and in the end what will be known as the provincial council of university (and higher) education will be a sort of federal body presiding over a federation of universities in the province. In the meanwhile, there will be certain departments of educational activity outside the jurisdiction of these councils which the Provincial Government will continue provisionally to administer under its direct and central authority, *e.g.*, the departments of secondary and primary education (general, special, and technical), normal schools and training colleges (including police training or cadet training schools), art schools, various training institutes in connection with the agricultural experimental farms, and the geological, archæological, and other surveys, etc., to which, perhaps, army and navy schools and a school of naval architecture may be added in future. And the Provincial Government, through a ministry of education, will exercise general control over the policy and financial management of the council or councils of university education, and co-ordinate and link up their general policy with that of other departments, both educational and otherwise.

SEN, Rai BOIKUNT NATH, Bahadur.

The Provincial Governor ought to be the chancellor, instead of the Viceroy and the Governor-General of India, and the office of the rector should be abolished.

Affiliation of colleges should not be ordered by Government, but should be by the chancellor.

Nomination of fellows by the chancellor should be reduced in number.

SEN, PRAN HARI.

The relations between the Government of India and the Provincial Governments to the universities of India should be one of mutual co-operation, confidence, and trust, with a little more leaven of the policy of non-interference.

SEN, Dr. S. K.—SEN, Rai SATIS CHANDRA, Bahadur—SEN, SURENDRANATH—SEN, SURYA KUMAR—SEN, GUPTA, Dr. NARES CHANDRA.

SEN, Dr. S. K.

As at present; I would prefer no change.

SEN, Rai SATIS CHANDRA, Bahadur.

The Government of India should have no control over the universities in Bengal. At present Provincial Governments should be given some power of control over the purse, as it is presumed Government would contribute substantially to the maintenance of a high standard in the University. As regards administration, selection of professors, and framing rules not inconsistent with the Act Government should have no control.

SEN, SURENDRANATH.

The interference of Government has never been, and cannot be, for the good of the cause of education. The education member of the executive council is generally an old member of the Indian Civil Service, the peculiar conditions of which make him specially unfit for his office. The appointment of European professors in Government colleges has also proved injurious. There are very few really able men among the European members of the Indian educational service, and their inferiority to their official juniors becomes still more conspicuous by comparison. As their duties end mostly in class-rooms students in Government colleges often lack that moral and spiritual energy that characterise the students of many private institutions (the present writer speaks from personal experience both as a student and as a professor in Government colleges). And as the Indian educational service professors generally do not tolerate any free discussion of Indian history and Indian economics, and often assume an attitude of contemptuous superiority as the members of the "ruling caste", no real work of education can be, or will ever be, done under their guidance. The inspecting officers again, are mostly recruited from the failures in the professorial branch and, as they gradually lose all touch with college work, they steadily become unfit for the work for which they are deputed. The University should, therefore, be given complete autonomy, the official character of Government colleges should be altogether abolished, and the whole of the inspection department, the Director of Public Instruction included, should be placed under the control of the University. Government should, at the same time, resign its prerogative of nominating fellows of the senate, and the education of the country should be entrusted, with as few restrictions as possible, to an elected vice chancellor. When these reforms are introduced more than one university, at different centres of Bengal, may be established.

SEN, SURYA KUMAR.

The Government of India should be the highest authority in its relation to the University of Calcutta and the authority of the Provincial Government should be next to that of the Government of India.

SEN GUPTA, Dr. NARES CHANDRA.

Government should exercise benevolent supervision over the work of the University, and should also be represented in the University by a certain proportion of nominated members of the senate, not exceeding half the total number.

SEN GUPTA, Dr. NARES CHANDRA—*contd.*—SEN GUPTA, SURENDRA MOHAN—Serampore College, Serampore—SHARP The Hon'ble Mr. H.

I cannot give a decided opinion whether control should be exercised by the Government of India or by the Government of Bengal. I am rather inclined in favour of the present arrangement.

The University should be given full autonomy in respect of its internal affairs. The present powers of the Government of India in respect of changes in the regulations, the appointment of professors, etc., should be abolished. Any direct interference with the details of the work of the University should be made only by a legislative Act or a resolution of the Legislative Council.

SEN GUPTA, SURENDRA MOHAN.

The present system is working well under the circumstances, the only modification necessary being that Government should give up the right of nominating the vice-chancellor. Should other universities be founded the same form should be extended to them as well.

Serampore College, Serampore.

We are doubtful of the wisdom of leaving all the university problems of the province to be settled by the Provincial Government. We are likely to witness, in due course, considerable advance in the direction of granting a large measure of autonomy to Indian provinces something on the lines, perhaps, of what already exists in the United States of America. We are of opinion, however, that the cause of university education in America has suffered through the individual States exercising supreme power in the matter of university charters. Thus, some of the American States have granted university powers to institutions that are little better than secondary schools, while other States rigidly maintain the best university traditions. We have no special schemes to put forward as to the relation that should exist between the Government of India and the Provincial Government in these matters, but we are strongly of the view that the Government of India should not be a negligible factor in the case.

SHARP, The Hon'ble Mr. H.

This question, difficult at any time to answer, is all the more so at a time when large questions touching the Imperial and Provincial Governments are undergoing investigation.

In respect of universities, other than Calcutta and Benares, the functions of the Government of India are restricted to dealing with legislation in the Imperial Legislative Council and occasionally assigning grants of money. In the case of the Patna University a reference to the Government of India is required in the contingency of certain questions arising. Probably, the Government of India should continue to deal with university legislation (though I would except Burma, whose conditions are altogether peculiar). But such legislation should touch only the broadest issues. Indeed, in the case of local universities, the Act should be purely a skeleton Act and the regulations under which the University and its governing bodies will operate should be the work of experts rather than of a legislative assembly.

The Government of India occupies the place of a local Government *vis-à-vis* with the University of Calcutta; and the Viceroy is chancellor. One reason for this is the fact that this University extends its jurisdiction over several provinces (though in this respect it is not unique). The arrangement is not the most convenient, and should cease when circumstances permit.

The Government of India is also peculiarly associated with the Benares Hindu University by reason of its all-India character. It is possible that the multiplication of universities may render it necessary for the Government of India to retain some general power of standarding results and of defining the relations of universities to schools, etc. Since, however, such powers are more appropriately wielded by the

SHARP, The Hon'ble Mr. H.—*contd.*

local Government, their concentration in the hands of the Government of India is to be avoided and might well be limited to the usual sanction of legislation, or of certain kinds of clauses in regulations, the alteration of which is undesirable having regard to India as a whole. I have already dealt with the question of a standardising agency.

Next, as to the nature of the relations which should exist between the University and the Government (be it the central or a local Government) one is faced with a great variety of different models, from the purely State university, such as is found on the continent of Europe and in some of the United States of America, to those over which the control is very slight, as in the United Kingdom. The nature of the control should be fixed with regard to the local conditions. The conditions in Bengal which affect the issue are :—

(*a*) The widespread desire for a university education resulting from the lack of variety in employment.
(*b*) The weakness of public opinion in regard to discipline and standards.
(*c*) The insistence, urged by a certain class, upon popular control in university matters.
(*d*) The introduction of non-educational motives into educational questions.
(*e*) The existence in the country of local variations and conflicting interests.

These conditions are inimical to university development on proper lines and point to the desirability of establishing State universities. They have resulted in undesirable situations regarding applications for affiliation, appointments, and failure on the part of the University to observe its regulations, which indicate that the power over the framing of regulations and the other means of check at present possessed by Government are insufficient.

On the other hand, there are certain considerations which bear in the opposite direction. These are :—

(i) The traditional British policy regarding universities.
(ii) The desirability of affording to India every opportunity of training in self-governing institutions.
(iii) The existence in the country of an external power, necessitating, within all reasonable limits, discussion and advice in matters which affect the public at large.

Hence, it appears advisable to steer a middle course. This has been the aim in my general memorandum. The main points in which Government may, or can, exercise some check over the University are the following :—

(A) The relation to schools.
(B) The admission of students.
(C) The standards in courses and examinations.
(D) The internal arrangements of teaching and discipline.
(E) The affiliation and disaffiliation of colleges.
(F) The appointment of staff.
(G) The framing of regulations.

I have already dealt with the first three of these points—with (A) and (B) under question 8 and with (C) in connection with the scheme for an examining board explained in my general memorandum and again to be treated under question 15. Points (A) and (B) are matters which must, of necessity, be decided by the central education authority; the control under point (C) will be automatic and involves no interference or friction.

As regards the rest it is obvious that different treatment of each matter will be appropriate for the affiliating university and for the local universities. I do not propose to say much about the latter because it is to be hoped that they will be managed almost exclusively by the staff, and because it is desirable to experiment with a variety of models over a number of years. Generally speaking, these universities will spring out of Government colleges and, hence, will naturally be Government institutions. But this need not be the invariable rule. The remarks below, therefore, apply primarily to the affiliating university, though in principle they are applicable to the other type also.

The ideal university, no doubt, is that which manages itself. But such a university is fitted only for an ideal state of society, or at least for a condition which permits of due development without interference either by Government on the one

SHARP, The Hon'ble Mr. H.—*contd.*—SINHA, ANANDAKRISHNA—SINHA, KUMAR MANINDRA CHANDRA—SINHA, PANCHANAN.

hand or by lay opinion on the other. With a view to strengthening the academic element I have suggested the creation of academic bodies so that interference by Government should be unnecessary in point (D)—the arrangements of teaching and discipline. The objection raised by the late Mr. Gokhale in 1904 against the strengthening of this element is of less force now, when Indians hold a preponderating number of professional posts in colleges. As to (E) the affiliation and disaffiliation of colleges should, as now, rest with Government, and every resolution on such a case, moved by a member of the administrative or academic bodies, should come to Government for ultimate decision. When a local university is not strictly uni-collegiate the inclusion of new departments, or constituent colleges, should require Government sanction. Point (F) does not arise regarding affiliated colleges (though Government will, of course, continue to appoint in colleges maintained by itself). Appointment to university chairs, etc., which are supported wholly, or in part, by Government money, should require the previous sanction of Government. The appointment of others might be left in the hands of a syndicate of the composition suggested, subject, of course, to the veto of Government in the case of undesirable persons. Point (G)—the framing of regulations (including additions and changes) is a power which I should like to see placed entirely in the hands of the universities. But this could not be safely done at present.

The control of Government will also, to some extent, be secured by the existence of Government nominees on the university bodies. The loan of Government professors, too, is an amicable means of introducing a steadying influence.

There is some ground for the retention by Government of wide emergency powers such as it possesses in the case of the Benares Hindu University. Such powers would hardly ever be used, but their existence would exercise a restraining effect. If, however, the authority of the academic bodies is secured, and a constitution approximating to that which I have suggested is adopted, the necessity for such a power should hardly arise.

SINHA, ANANDAKRISHNA.

The existing relation between the Governments of India and Provincial Governments and the University is quite satisfactory except on two points. If the Governments confine their activity as financial agents, and do not interfere with the inner working of the University, they would be doing the proper thing. The University should be completely autonomous in the formation of its budget, in the appointment of its lecturers and readers, in the election of its senators and vice-chancellor, and in the management of its internal affairs. The present system of nomination of the vice-chancellor by the Government of India ought to be abolished, and the senate should be left to itself in the selection of its leader. Secondly, the nomination of a large number of senators by Government is a palpable anachronism in a democratic age. Bombay has wanted 70 per cent of its senators to be elected, Bihar is going to have more than 60 per cent, and Calcutta, which has got more affiliated colleges and a larger number of educationists, should not rest content with less than 80 per cent. If these things are carried out the University would have nothing to complain about.

SINHA, KUMAR MANINDRA CHANDRA.

Government should be more largely associated with this university movement, but only as a check; the people alone must guide their own systems for the imparting of knowledge.

SINHA, PANCHANAN.

Government should supply funds and employ a number of educational experts for the proper utilisation of the funds and should, on no account, interfere any further.

SINHA, UPENDRA NARAYAN—SIRCAR, The Hon'ble Sir NILRATAN—SMITH, W. OWSTON —SÜDMERSEN, F. W.

SINHA, UPENDRA NARAYAN.

The Provincial Governor should be the chancellor.

SIRCAR, The Hon'ble Sir NILRATAN.

The Calcutta University should maintain its present relations with the Government of India. She has suffered no disadvantage on account of her being in intimate relation with the Government of India instead of with the Government of Bengal.

As regards finance the University must depend, amongst other sources, upon State grants on account of the impossibility of deriving any income from cesses or taxes. But simply on this account Government should not seek to dominate her by overwhelming representation on the governing body.

The University should be a body of experts under Government control; but, along with Government interest, the academic interest of schools and colleges and the interest of the public in different shapes must be developed in the University. Endowments depend entirely upon public interest.

Thus, the public, consisting of the commercial interest, the industrial interest, and the interests of the different professions of law, medicine, engineering, etc. (which include the graduates), and the Corporation, etc., should be recognised as having a voice in the conduct of the University education.

High education, after all, is a social question.

Teachers and professors, again, should have a double function:—

(*a*) They should take part, along with others, in the general management of the University.

(*b*) They should direct advancement of education and keep up the standard through a "Senatus Academicus".

Government should allow representatives of the public and colleges to associate themselves with, and help them in determining, the policy of the University.

SMITH, W. OWSTON.

If it is of the Camford type they should let it alone as much as possible. If they wish to control or check it they should appoint an official who is an educational expert to do the work.

SÜDMERSEN, F. W.

The proposals above contemplate in the near future four separate universities—two in Calcutta, one mofussil university, and the Dacca University. The leading two universities contemplated for Calcutta and Dacca will, naturally, afford, for very many years to come, the highest scope for an ambitious and capable professor. It is essential, therefore, that the way be not barred to an easy passage from one university to another, and the whole of India should be similarly open to migration. It will be difficult to secure this unless there be a central controlling body. We shall, otherwise, find that the universities tend to become watertight compartments, and men of merit will be passed over very frequently, resulting in a deadening of effort. Without this central controlling authority time and money will also be expended in reproducing experiments which have proved failures elsewhere. Conditions throughout India are Generally identical.

Whilst, therefore, a wide degree of freedom may be left to universities and to local Governments it appears desirable that, until universities have freed themselves from their present unsatisfactory conditions, considerable powers should be reserved to the Government of India. Local influences usually tend to reduce things to a low level of inefficiency by subordinating education to political and other exigencies.

TIPPLE, E. F.—TURNER, F. C.—VACHASPATI, SITI KANTHA—VIDYABHUSAN, RAJENDRANATH and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA—WAHEED, Shams-ul-Ulama ABU NASR—WALKER, Dr. GILBERT T.

TIPPLE, E. F.

Government should deal with the universities solely through its Education Department. To enable this to be done effectively directors of public instruction should hold the position of secretaries to Government for education, so that educational matters may be considered primarily from the educational standpoint through an officer conversant with educational affairs.

TURNER, F. C.

I do not advocate any increase in the control by the Government of India or of Bengal over the University of Calcutta. I consider that a university is by nature an autonomous body and that, though mistakes are made, and will be made, these mistakes are a lesser evil than official control would be.

VACHASPATI, SITI KANTHA.

In order to perfectly fulfil its function as an instrument of human progress the University should be left unfettered to develop its energies, promote research, and advance learning in the manner best suited to its environment. The University should be perfectly autonomous in respect of the control of education and examination. State control should be withdrawn from the University. The head of the provincial administration should be the chancellor, and Government may be represented in the senate by a few higher officials.

VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

The University should be perfectly autonomous in respect of the control of education and examination after proper provision is made for the adequate representation of educational officers and eminent men of other professions. The head of the provincial administration should be the chancellor; Government should be represented on the senate by a few high officials, and may make conditions for grants.

WAHEED, Shams-ul-Ulama ABU NASR.

The relation between the Government of India and the University should be more limited, but that between the local Government and the University should be more close and the local Government should be in a position to take more effective interest in university affairs.

WALKER, Dr. GILBERT T.

I learn on all sides, at other Indian universities as well as Calcutta, that, although there is a small minority that struggles to raise the standard of the examinations, there is a very decided majority opposed to this partly because they dislike the idea of rejecting candidates for degrees, and partly because they are directly connected with colleges that can ill-afford the staff and equipment necessary for efficient teaching. It would, I think, be unwise and impracticable for Government to interfere and insist on direct control of the examinations; it would arouse keen

opposition and would not, I think, be effectual in the face of that opposition. Hence, it appears to me that the present relations are essentially right, the Government of Bengal having control of the Presidency College and exercising influence over the Calcutta University, mainly through the representatives of the Presidency College. My impression is that the relations between the Government of India and the Government of Bengal should be such as not to reduce the responsibility of the latter. In questions of principle the former authority should only be called in when an appeal is made.

WEBB, The Hon'ble Mr. C. M.

In Burma I would advocate a certain degree of influence by the Provincial Government over the University. A university is inclined to develop its cultural side at the expense of its practical side unless it is kept closely in touch with the acutal needs and requirements of the province. The influence should be exercised indirectly by the nomination of a proportion of the members in the council of the University, by scholarships, and by the endowment of certain courses of study and branches of research.

WILLIAMS, Rev. GARFIELD.

The answer to this question depends on the nature of the universities. If there are to be several of them, and they are to be somewhat of the kind indicated in the general memorandum, a relationship such as that indicated there is satisfactory.

If they are to continue to be of the type of the present Calcutta University—mere developments of the University as a glorified examining body—I am strongly of opinion that they should be absolutely controlled by the State. And probably, their ultimate control should be vested in the Government of India.

But I submit that the *nature* of the University is a prior question, and that no answer can be given to this question until this prior question is answered.

WORDSWORTH, The Hon'ble Mr. W. C.

The University should have a territorial jurisdiction not transcending provincial boundaries. It should look to the Provincial Government for general control, and its chancellor should be the head of the province. The Government of India should remain in the background with, however, reserved power of intervention if university policy followed a direction not in accord with the interests of India as a whole. The head of the Education Department of the Government of India might be given an *ex-officio* status in every Indian university—this would enable him to keep in touch with their proceedings.

QUESTION 15.

Do you hold it to be advantageous or the reverse,

(*a*) to the public services,

(*b*) to the students,

(*c*) to the progress and advancement of learning,

that university examinations should be regarded as the qualification for posts under Government? Would you advocate the practice, adopted in many other countries, of instituting special tests for different kinds of administrative posts under Government?

ANSWERS.

ABDURRAHMAN, Dr.

University examinations should be a *sine qua non* for admission into public service.

I do not advocate the practice adopted in many countries of instituting special tests for different kinds of administrative posts under Government.

(i) Disinterestedness in education is only an ideal. No doubt, disinterestedness has often been preached by teachers for the emulation of their educands, but no teacher has ever seriously entertained the idea that the people as a whole should acquire education for its own sake. The delights of scholarship, without any idea of its use, are the privilege of the well-provided and the eccentric alone.

The real basis of all education is the economic basis. Education must always have an end to serve. It must help the community and the individual in the struggle for existence and supply the means not only to survive, but to conquer.

The Commission asks its correspondents if they advocate the practice, adopted by many other countries, of instituting special tests for different kinds of administrative posts under Government. Is there any country where the State recruits its administrative service by admitting persons who have not been to a university, but have successfully passed certain special tests instituted by its Government?

If the system of State examinations in Germany (because Germany is the only country where the system prevails in its most exaggerated form) has led the framers of the question to believe that it is so their belief is mistaken.

In Germany "the States do not allow anyone to hold an appointment in the Church, in the judiciary, or higher administrative service, and permit no one to practise law or medicine who has not studied in a German university and *then* passed the prescribed State examinations". These State privileges are more important for the German universities than the right to grant academic degrees.

In France "the student who aspires to become an *avocat* or magistrate, or intends to enter into any of the higher grades of public service, matriculates in the university on the completion of his course in the *lycé*. This university training, culminating in the *licence en droit*, is a necessary stage in the evolution of the French lawyer, though he is not entitled to practise until he has also devoted three years to assiduous attendance at the hearings in the court and has carried on practical work and discussions under the directions of the Order of Advocates".

The teaching of medicine in France and America, as in Germany, is a university affair.

(ii) Does the Commission mean to refer to the American and English systems of the education of barristers and solicitors? But in America the law schools have, from the beginning, been university foundations. Of the hundred and

ABDURRAHMAN, Dr.—*contd.*—AHMED, Maulvi KHABIRUDDIN.

fourteen schools reported for the year 1910 only twenty were without a university connection. There are a few instances where the relationship is nominal but, even here, the university spirit and influence is asserting itself.

In England alone we find that the education of professional law is the work of the active Bar, and is exclusively given by the Inns of Court which were established "as an university or school of commendable qualities requisite for noble men" with charges so high that "the children only of noble men doe studie the Lawes in those Inns".

But what has been the result of this? Has the entire independence of, and separation from, the universities been useful or harmful to the interests of the profession and legal education? The result is that there is yet no promise of that fusion of theory and practice and of academic learning and technical training which we find on the continent. There is no uniform standard of the preliminary education for the study of law, and the tradition at the Bar favours only a practical education of the law office. Even then the "case method" which is revolutionising the teaching of law in America is unknown.

The English universities teach what is dead of law and the Inns of Court do not properly teach what is living of it and the whole system lamentably falls short of the ideal. It could never have happened if the universities alone, or the universities and the Inns of Court together, were the gateway for the profession of the Bench and the Bar.

(iii) In Europe, wherever a branch of any professional knowledge or administrative instruction is found exclusively in the hands of a guild, society, or corporation, in place of a university, the only reason is historical. Such anachronisms exist only because they have existed for so long. Otherwise, the march of progress all the world over is from the guild system to the university system.

And, after all, the Inns of Court are not the Government, but a corporation of learning similar to a university.

(iv) A liberal and humanistic education is as necessary to qualify a person for administrative work as for any educational or learned pursuit.

(v) The universities of India, China, and Japan have been labelled by an American educationist as more bread-winning, than truth-investigating, universities. He says:—"the reason for the ideal of efficiency is not far to seek. The means of subsistence are so small, the margin dividing starvation from bare existence so narrow, that any force must be utilised, every method employed, which shall add a crumb to the food or a thread to the garment".

If students are permitted to walk round the University and enter public and administrative services from other routes, and with different passports, the universities will have to close. It will mean the ruin of the work of a century.

AHMED, Maulvi KHABIRUDDIN.

I do not consider it to be advantageous

(*a*) to the public services,
(*b*) to the students, and
(*c*) to the progress and advancement of learning

that university examination should be regarded as the sole qualification for posts under Government. Separate special tests for different kinds of administrative posts under Government should be instituted, with the proviso that admission to the test may be open to candidates passing certain university examinations.

AHMED, TASLIMUDDIN, Khan Bahadur—AIYER, Sir P. S. SIVASWAMY—ALI, The Hon'ble Mr. ALTAF—ALI, Saiyad MUHSIN—ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT—ALLEN, H. J.

AHMED, TASLIMUDDIN, Khan Bahadur.

Yes; university examinations should be regarded as the qualification for posts under Government. After getting a post the candidate should be given a training in the administration of the department to which he belongs.

AIYER, Sir P. S. SIVASWAMY,

There are, undoubtedly, evils attaching to the system of regarding university examinations as the qualification for posts under Government, but it is a question of a choice of evils. The evils of a multiplicity of public examinations are at least as serious to the well-being of the community. Again, the abolition of university examinations, or some other similar public examinations, as the standard of qualification for admission, and the institution of separate tests by different departments of Government, are likely to lead to considerable fluctuations in the standard, to favouritism, and to a deterioration in efficiency. Again, it must be remembered that the most important of the public services do not require any specialised knowledge, but only general ability and attainments of a particular standard. The special knowledge which may be necessary for any particular department of the public service must rather be acquired after admission into those departments, and not insisted on as a condition precedent to admission.

ALI, The Hon'ble Mr. ALTAF.

University degrees should certainly qualify one for posts under Government. It would be advantageous to all concerned. But, at the same time, I think special examinations should be held to test an applicant's merit for the particular post he may apply for.

ALI, Saiyad MUHSIN.

(*a*) (*b*) and (*c*) Advantageous in all respects.
No; the necessary training might be usefully given after appointment

ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT.

(*a*), (*b*) and (*c*) Yes; advantageous. But vast improvement will result in all if more attention is paid to the capacity of the individual for particular work, than from merely taking the university qualification as the final test. This can be done by special tests safeguarding, at the same time, the interest of the backward, and the Muslim, communities. Terms acceptable to the Muhammadan community will be restricted to competition and the reservation, as at present, of a number of posts for Muhammadans, and the recognition of the principle of giving preference to territorial representatives.

ALLEN, H. J.

The close connection established between university examinations and Government service has been, I consider, injurious to the University because it has played a large part in creating that public opinion referred to in my answer to question 1. All sorts and

conditions of intellect have been tempted to the University as the ante-chamber to the public services. The pressure thus created inevitably drags down our standard.

This view, of course, rests on the British conception of the University as a factory of quality, rather than quantity. If, on the other hand, the democratic type, with standards low enough and meshes wide enough to attract is the ideal, if *multos non multum* is what we should seek to secure, then the fact that our University examinations qualify for Government service is all to the good.

Nor does it follow, even if we regard the connection as disastrous, that the mischief would be removed by the institution of special tests for entrance into the public services. There would probably be at once a demand that university courses should be assimilated; this would be voiced in the Press and the senate (especially if elected) and the last stage of that university would be worse than the first.

ALLEN, Dr. H. N.

As far as engineering is concerned I do not consider that special tests for Government service are necessary.

ALUM, Sahebzadah MAHOMED SULTAN.

The present system of allotting appointments in the public services to university graduates is not so satisfactory as the system of a special test. Take, for instance, a B.Sc. student deficient in English. On account of his university certificate, if he is appointed to the subordinate service as a deputy magistrate or munsiff, he would not do so well as one efficient in English and philosophy. For every post there ought to be a special test. I know some who have not passed the I.A., but can write as well as, if not better than, an M.A.

Further, in order to safeguard the interests of the backward communities, and especially Musalmans, who form the majority of the population of Bengal, a certain number of posts should be reserved for them and they should be filled up by competitive examination amongst them. I am informed that in Bihar Hindus form the majority, but Musalmans, though much less in number, are more educated and, therefore, nowadays almost all posts are given to Hindus to form an equilibrium, but that procedure is not observed in Bengal. I, therefore, say something ought to be done to safeguard the interests of Musalmans all over India. It is, to a very great extent, neglected at present.

ANNANDALE, Dr. N.

I have already given an answer to this question in replying to question 9.

AZIZ, Maulvi ABDUL.

(*a*), (*b*) and (*c*) Reverse.

University degrees should not be made the qualification for posts under Government. The sooner the existing practice is stopped the better both for the public and for Government.

A special test for different kinds of administration should be instituted, and this test should also include, above all, purity in character and piety, which must be gathered confidentially from the people surrounding the candidate's native place.

BAGCHI, Dr. HARIDAS—BANERJEA, J. R.—BANERJEA, Dr. PRAMATHANATH—BANERJEE, GAURANGANATH—BANERJEE, Sir GOOROO DASS.*

BAGCHI, Dr. HARIDAS.

I suggest that competitive examinations be held for the selection of candidates for the various administrative posts under Government. The examination system has all the advantages, but none of the failings, usually associated with the nomination system. The main advantage of instituting special examinations over and above the university examinations which the candidates have already gone through would be to give another chance to some of the candidates who may not have done well at the University and who, nevertheless, may be as meritorious as, or even more meritorious than, their rivals. Moreover, the competitive system is likely to remove the grievances of the poor deserving students who can possibly beat down their rivals in open competition, but who may find it difficult to prove their merit under the nomination system.

BANERJEA, J.

I hold it to be advantageous to the public services, to the students, and to the progress and advancement of learning that university examinations should be regarded as the qualification for Government posts. If this be the case no criticism would be possible. Students will enter Government service by merit, and by no other means. But, in addition to university qualifications, special tests should be instituted for different kinds of administrative posts under Government, as the due discharge of the duties of these posts would require special qualifications for which the university qualifications might not be a sufficient guarantee.

BANERJEA, Dr. PRAMATHANATH.

I hold it to be advantageous to all parties that university examinations should be regarded as the qualification for posts under Government. Supplementary special tests may, however, be instituted in cases where a high degree of technical knowledge is required.

BANERJEE, GAURANGANATH.

I do not hold it to be advantageous either to the public services or to the students or to the progress and advancement of learning that university examinations should be regarded as the qualification for posts under Government.

I strongly advocate the practice adopted in some countries [*e.g.*, in England (*re* examinations for civil service, medical service, military and naval services, diplomatic service, etc.); in Germany (*re* special examinations by the Government for almost all the public services, etc.)] of instituting special tests for different kinds of administrative posts under Government.

BANERJEE, Sir GOOROO DASS.

I "hold it to be advantageous"

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning,

that university examinations should be regarded as the qualification for posts under Government because the attainment of high university degrees and distinctions is the

best test of general intelligence and steady diligence, and the employment of young men with such degrees and distinctions is calculated to secure for the public services the best men, to secure for students the best patronage, and to secure for the progress and advancement of learning the best encouragement next to special fellowships for research. For different kinds of administrative posts supplementary examinations in special subjects may be held, if necessary. There is only one class of students for whom the above method of appointment would be disadvantageous, namely, intelligent students who, for want of steady application or lack of general intelligence to master every subject, are unable to obtain good university degrees, but who can compete successfully at special examinations. For the benefit of this class of students it may be desirable perhaps to adopt a middle course, and to reserve half the number of available posts every year for them, to be awarded on the result of special competitive examinations, reserving the other half for distinguished university graduates.

BANERJEE, JAYGOPAL.

I think, on the whole, it is advantageous. Yes; such special tests, if made *supplementary* to the University B.A. degree, considered as an irreducible minimum of qualification, are needful and valuable.

BANERJEE, Rai KUMUDINI KANTA, Bahadur.

I hold it disadvantageous

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning,

that university examinations should be regarded as the qualification for Government posts.

Yes; I would advocate instituting special tests for different kinds of administrative posts under Government. The present condition that the university diploma or degree is practically the only means of getting Government posts is the greatest obstacle to proper university education in Bengal.

BANERJEE, M. N.

(*a*), (*b*) and (*c*) Advantageous.
Special tests may be instituted for some posts.

BANERJEE, MURALY DHAR.

Such university examinations only may be regarded as the qualification for posts under Government as increase the fitness of the examinees to discharge the special duties of their posts. University examinations which do not increase fitness for special posts should not be regarded as qualifications for those posts. To regard university examinations as qualifications for such posts I hold not to be advantageous

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning.

Many of the administrative posts, like those in the executive service, are of this nature. It would be advantageous to all to institute special tests for such posts. Some liberal education, however, at least up to the matriculation standard, should be required as a condition for competing at these examinations.

BANERJEE, SASI SEKHAR—BANERJEE, SUDHANSUKUMAR—BANERJI, MANMATHANATH.

BANERJEE, SASI SEKHAR.

I can discuss this question so far as general principles are concerned.

(*a*), (*b*) and (*c*) I think it will be advantageous if university examinations are regarded as a fit test of general ability and intellectual equipment. Should it be so an additional stimulus and encouragement will be given to university education. The best men in the judicial, executive or any other service are university men. It is only in some branches of administration that special tests may be needed, such as surveying and riding, for the judicial and executive services, or special training for the police service. *Vide* my answer to question 9.

BANERJEE, SUDHANSUKUMAR.

It would be advantageous

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning,

if university examinations be regarded as qualifications for posts under Government. A very objectionable system of nomination is now being followed by Government in all its public services, except the medical service, the engineering service, and a few appointments in the judicial service. This has already proved detrimental to the interests of all the three factors, *viz.*, the public services, the students, the progress and advancement of learning, and has very often excited public protest. To say that students should come to the University simply "to learn, and not to earn" is an absurd statement which is now nowhere tolerated. Everywhere in the world the majority of students make the earning of money the aim of their life, and only a very small fraction make the acquirement of knowledge their only object. The best students of the University should, therefore, be given preference for posts under Government. For most of the administrative posts under Government the institution of special tests is wholly unnecessary if the posts are laid open in order of merit to candidates passing an equivalent university examination. Even if the special needs of some administrative posts under Government require the institution of special tests the standard of difficulties of these tests should be adjusted to the requirements of the posts and the salaries which they carry. If arrangements be made for probationary periods of training in accordance with the requirements of the particular posts even such special tests would seem to be unnecessary.

BANERJI, MANMATHANATH.

I hold to be advantageous

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning in the province,

that university examinations should be regarded as qualifications for posts under Government. With very slight modifications university examinations may serve as a test for clerkships and executive service under Government. Where men of technical education will be required the demand may best be met by the opening of such departments of instruction under the University.

As regards the principle of instituting special tests for different kinds of administrative posts under Government I beg to observe as follows:—

If the test and training be under the University I have no objection but, I think if Government insists upon keeping the thing in its own hands, the education

of the community will suffer. People at the present day look upon education as an instrument for earning money. Government may profitably require selected university graduates to undergo practical training extending over a definite period.

BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN.

I think it is advantageous to the public services, to the students, and to the advancement of learning that university examinations should be regarded as a qualification for office under Government. For the recruitment of efficient servants of Government university degrees are a safe test. The hope of getting suitable and high posts serves as a great stimulus to students and encourages them to make progress in learning. For special kinds of administrative posts requiring special knowledge not covered by university tests special tests would be desirable.

BANERJI, UMACHARAN.

I certainly hold it to be advantageous to the

(*a*) public services,
(*b*) students,
(*c*) progress and advancement of learning,

that university examinations should be regarded as the qualification for posts under Government. I strongly advocate the practice of instituting additional special tests for different kinds of administrative posts under Government. I do not think it necessary to enter into details on this point.

BARDALOI, N. C.

I consider it to be the reverse.

Yes, I would advocate the practice of instituting special tests for different kinds of administrative posts under Government.

BASU, P.

(*a*) Following the practice of many countries it would be advisable to have separate examinations for the public services, the present method of recruitment to which is far from satisfactory. But there is one disadvantage. This system involves duplication of examinations inasmuch as the standard of examination for public services must be more or less the same as the standard followed in one of the university examinations. For example, in recruiting members to the financial department of the Government of India various subjects are prescribed the standard of which is declared to be that of the B.A. honours standard of the University. This examination, it seems, could have been easily obviated if the whole of India, for which there is recruitment, had one university. So long as there is more than one university—and this is a permanent feature—this examination must remain. But for the provincial service the results of the University examination may be made the test of fitness if the test be one of general qualifications, as is involved in the present system. If special technical knowledge is thought to be necessary for any public service the examination may be profitably confined to that only, subject to a minimum university qualification

guaranteeing general fitness. But, if the intention be to confine the University course, in its higher sphere, to eminent research work, and if it is desirable to debar the entrance thereto of persons who do not intend to carry their research through their life, then there will be, and ought to be, a large number of persons who would not be fit for higher university training. In such a case it would be to the interest of the public services to have examinations in which anybody may appear, whatever his university qualifications be, as is the case for Indian civil service examination.

(*b*) For the students it seems desirable to have an examination entirely separate from that of the University by the results of which they can enter the public services. It is not untrue to say that the ambition of the major portion of the student community is to make the university career a means to enter the public services. But, as Lord Haldane says, it is not at all pernicious if the student is aiming at his future welfare even while he is in the university. The danger lies in the fact that this ambition tends to become all-pervading, ultimately quenching any thirst for knowledge for its own sake. In other countries this danger within the university is eliminated by having separate examinations for the public services. The ambition of material advancement in life is not crushed inasmuch as a thorough university training is ultimately beneficial for any such competitive examination, while this ambition cannot be the predominating consideration in the mind of the student for entering the University.

(*c*) For the progress and advancement of learning it is, undoubtedly, essential that the University should not attract the large number of persons who aim at the public services and, *therefore*, at the degree. Moreover, specialised studies in any branch can only be carried on when the body of students is zealous for original investigation and research, rather than for the degree only. Of course, even if there be separate examinations for the public services, there will be such students; but their number will not be as overwhelming as now, nor will they enter the University unless, at the same time, they are deeply interested in the subject in the pursuit of which they intend to spend so many years at the University. With such willing and earnest students the University in its higher classes may specialise and improve on what exists at present. In any case, it will add distinctly to the tone of university life if it is supplied with all the facilities of expert teachers, extensive library, well-fitted laboratory, and a system of examination which aims at testing these, rather than testing mere memory.

BASU, Rai P. K., Bahadur.

I do not hold it advantageous to anyone, or to the progress of learning, to regard university examinations as the qualification for entering the public services. The adoption of special tests would be, undoubtedly, advantageous if only facilities for special training could also be provided. In the absence of any special facility for training the special tests would degenerate into purely literary ones of no rare value.

BASU, SATYENDRA NATH.

University examinations should generally be regarded as the qualification for posts under Government, though the rule may be departed from in special cases. There are certain appointments for which qualifications are necessary which no examination can test or develop. Such appointments should be made independent of a university examination test.

Bengal Landholders' Association, Calcutta—Bengal National Chamber of Commerce, Calcutta—Bethune College, Calcutta.

Bengal Landholders' Association, Calcutta.

University examinations should be regarded as qualifications for posts under Government. We would advocate the practice of instituting special tests for different kinds of administrative posts under Government in addition to university examinations—not apart from them. There are not sufficient openings for our young men. The public services, naturally, attract a large body of our students, and help the development of the University and our educational institutions. They are beneficial to students, and also to the administration of the country.

Bengal National Chamber of Commerce, Calcutta.

The qualifications necessary for Government posts may be classified under two heads—general and special. For the test of general qualifications university diplomas and degrees should suffice. For the test of special qualifications special examinations must be arranged by the University. Such an arrangement will be advantageous to all—to the public services, to the students, and to the progress and advancement of learning.

Bethune College, Calcutta.

Sen, P.N.
Mukerjee, B. G.
Bhattacharya, K. C.
Sen, P. C.
Chowdhury, B. K.
Chatterjee, K. B.
Roy, D. N.

(*a*) It is, on the whole, advantageous to the public services provided that other considerations, *e.g.*, of health or of family are combined with that of university qualification. Special intellectual tests for Government posts are likely to be perfunctory as compared with the University tests.

(*b*) and (*c*) On ideal considerations it is certainly not desirable that students should look upon university training as only a passport for bread, and not as an end in itself. But the fact has to be considered that this training is mainly intended for the sons of middle-class people who have not many avenues of employment beyond the services and the learned professions; and there is also the general circumstance that our university system is not, like our indigenous systems, vitally connected with our traditional religious sentiments. It is, therefore, necessary that the love of learning should be partly subordinated to the ambition for posts under Government and elsewhere. Under any conditions *partial* freedom from the insistence of the bread problem is all that can be looked for from most students while in the University, though it should be possible for some students, and made possible for others (by adequate subsistence allowances), to devote themselves entirely to learning.

Janau, Miss A. L.

(*b*) and (*c*). I hold it to be totally detrimental to the progress and advancement of learning and, naturally, therefore, disadvantageous to students that university degrees should be regarded as practically *the* qualification for posts under Government. At every turn I find that suggestions for the improvement of the University are met with objections which when tracked to their origin, are found to be based on considerations foreign to university problems proper, but connected with the question of Government posts and their requirements.

The only considerations which should affect university policy are the development of the individual to his fullest capacity, and the advancement of learning in every branch, no branch being considered as lower than another. The University, like Bacon, should take 'all knowledge as its province', and foster knowledge as such, whether pure or applied. If it does this then its sons and daughters will

Bethune College, Calcutta—*contd.*—BHADURI, Rai INDU BHUSAN, Bahadur—BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN—BHANDARKAR, Sir R. G.—BHATTACHARJEE, MOHINI MOHAN.

all find in the outer world scope for their energies, and will be welcomed in every service or industry as efficient workers for the community.

The young man (or woman) undergraduate, as such, should not be conscious of the necessity to earn a livelihood, but should be able to concentrate on self-development and on the acquisition and *assimilation* of knowledge—feeling confident that this will, when his university days are over, have fitted him for a useful (and, if necessary, remunerative) place in the community.

BHADURI, Rai INDU BHUSAN, Bahadur.

I would advocate the practice of instituting special tests for different kinds of administrative posts under Government, irrespective of university qualifications. This course, besides recognising the real merits of individuals, would also check the growing rage of passing examinations for securing Government service, and would make the young men look out for other, and more healthy, openings for their future careers.

BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN.

The present system of recruiting for Government services is open to serious objection from an educational point of view.

For different Government departments it would be advantageous to introduce special examinations like the competitive examination for the enrolled officers of the financial department. The syllabus for these examinations should include subjects of general culture taught in the colleges so that a student will not be handicapped in the struggle for existence by going in for a liberal education.

Special departmental examinations may test, after selection of the officers by the general examination, their efficiency in technical subjects, such as law, surveying, précis writing, book-keeping, etc.

BHANDARKAR, Sir R. G.

I think that university examinations should be regarded as the qualification for administrative and judicial posts under Government. Special tests should be applied, if necessary, some time after the candidates have been admitted into the service, as is done already in the revenue department. Before being admitted to a post in the judicial department a law graduate has to serve in our presidency in a subordinate qualifying post for some time. This arrangement Government considers desirable, and I agree.

BHATTACHARJEE, MOHINI MOHAN.

University examination is certainly a better method of recruitment for Government service than nomination, which was adopted by Government a few years back. Competition brings out real merit, and it stimulates people to improve themselves. It is said that examination is merely a test of book learning, and that the vigorous and energetic races of India would be excluded from Government service if examination were recognised as the sole test. But Government service does not call for martial vigour or giant physical strength. Sound health is certainly necessary but, apart from this, it is moral qualities—qualities of head and heart—that are most necessary. All successful candidates at a competitive examination need not be admitted to Government service; the physically unfit must be weeded out, those whose certificates of character are not satisfactory must also be left out. But no objection can possibly be raised against those who remain after so much sifting.

BHATTACHARJEE, MOHINI MOHAN—*contd.*—BHATTACHARYA, KRISHNACHANDRA—BHATTACHARYYA, BAIKUNTHA NATH.

In England university education is expensive, and to make university examination the test for admission to Government service would be practically to shut out young men without sufficient means. Hence the necessity for special examinations. I do not know the conditions prevailing in other countries, but in India university education is not very expensive because there are colleges outside Calcutta. Yet, considering the circumstances of the middle-class gentlemen of this province, it is desirable that there should be greater opportunities for university education. Even now I do not think that it would be an injustice to men of insufficient means if university examination is recognised as the test for admission to posts under Government.

But the question is connected with university courses. The B.A. examination would seem most suitable as the test for admission to Government service. But the B.A. course is being attempted to be made a highly specialised course. The recommendation of a recent committee of the senate is that B.A. candidates will have to study English and only one other subject. B.Sc. candidates will have to study three science subjects. The honours student will have to take an eight-paper examination in his honours subject. This is advanced study, and the course would be somewhat specialised. It has its value, as it would serve to lay the foundation of ripe scholarship. But, apparently, here, range of knowledge is sacrificed to profoundness, while in Government service are wanted men of strong common sense and all-round education of an ordinary standard. It would certainly not be to the advantage of the public services, or of the students, if young men who have received high honours by taking a specialised course are admitted to Government service as deputy magistrates or superintendents of post offices. On the other hand, it may be necessary to have these special courses for the production of sound scholars, and it would certainly be detrimental to the progress of learning to reduce the courses so as to satisfy the demands of ordinary all-round training required by the public services. If the B.A. course of the University is to be a specialised course there ought to be a separate examination for candidates for service under Government, but the University ought to conduct their examination.

BHATTACHARYA, KRISHNACHANDRA.

(*a*) It is, on the whole, advantageous to the public services provided that other considerations, *e.g.*, of health or of family, are combined with that of university qualification. Special intellectual tests for administrative posts are likely to be perfunctory as compared with the University tests.

(*b*) and (*c*). On ideal considerations it is certainly not desirable that university training should be looked upon as only a passport for bread, and not as an end in itself. It is to be remembered, however, that this training is mainly intended for the sons of middle-class people who have not many avenues of employment beyond the services and the learned professions; and there is the general circumstance that our university system is unconnected with our traditional religious sentiments. It is necessary, therefore, that the love of learning should be partly subordinated to the ambition for billets under Government or elsewhere. Under any conditions *partial freedom* from the insistence of the bread problem is all that can be looked for from most students while in the University, though it should be possible for some students, and made possible for others, by adequate stipends and scholarships, to devote themselves entirely to learning.

BHATTACHARYYA, BAIKUNTHA NATH.

Yes, it is advantageous to the public services, to the students, and to the progress and advancement of learning that university certificates, diplomas, and degrees should be regarded as the qualification for posts under Government. My answer to the second part of the question is in the negative.

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA—BHOWAL, GOVINDA CHANDRA—BISVAS, Rai DINANATH, Bahadur—BISWAS, SARATLAL—BOMPAS, The Hon'ble Mr. C. H.—BOROOAH, JNANADABHIRAM.

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

The University examinations should be regarded as the qualification for posts under Government; it would, at the same time, be desirable to institute special tests for the executive and judicial services under Government, as the nomination system for such services is oft-times complained against.

BHOWAL, GOVINDA CHANDRA.

Yes; even when special tests are adopted university degrees should be an indispensable qualification.

BISVAS, Rai DINANATH, Bahadur.

University examinations should be regarded as the qualification for posts under Government, but there should be special tests for different kinds of administrative posts under Government. This system will be advantageous to the public services, to the students, and to the progress and advancement of learning. In a poor country like India the main object of the majority of students in entering the University is to make provision for their subsistence and, if entrance to the public services be made to depend upon university tests, there will be an additional incentive to students to apply themselves more to their studies and achieve better results in the examinations.

BISWAS, SARATLAL.

To students and to the progress and advancement of learning this would be advantageous. But, as regards the public services, the passing of a university examination cannot, in itself, be considered as sufficient qualification for Government administrative posts. There should be a special competitive examination for each kind of service to which persons having obtained a certain standard of university training would be eligible to appear. The bachelor degree examinations in medicine, engineering, and other branches of technology and applied science may be taken as a sufficient test for posts in the respective departments.

In all cases, however, each candidate must previously satisfy the Board of examiners that he possesses the character and disposition necessary for the proper discharge of the duties of the post for which he applies.

BOMPAS, The Hon'ble Mr. C. H.

It is in every way objectionable that university examinations should be regarded as a qualification for posts in Government except, possibly, in the case of certain of the higher gazetted services.

BOROOAH, JNANADABHIRAM.

University examinations should not be the only test. Nowadays it is invariably the custom among high officials to ask intending candidates, "Are you a graduate?" If the answer is in the negative the official answers with regret that he cannot do anything for him. There should be special tests for different kinds of posts. It need not be pre-

scribed that only graduates are eligible, say, for administrative posts. Some men may, by their temperament, be specially suited for administrative posts, but they may not have the suitable qualifications for a degree. These men should be given a chance. And, besides, every good graduate does not necessarily make a good officer.

It is not desirable that every student should cast a longing look towards Government service. If there are no special tests every student will necessarily think of earning his daily bread by service. I believe that this hankering after Government posts by young men of merit is responsible for the decadence of our industrial and commercial enterprises.

It is injurious to the progress and advancement of learning for a student to think of Government posts immediately after graduation.

BOSE, B. C.

To regard university examinations as the qualification for Government posts is advantageous:—

(*a*) To the public services, inasmuch as men of intellectual attainments and liberal culture would thus be engaged in them.

(*b*) To the students, because it is one of the best ways of giving due reward or recognition to their academical labours

(*c*) To the progress and advancement of learning, for one of the most powerful incentives to intellectual pursuits and achievements is the possibility of their providing a decent livelihood for persons engaged therein.

But the standard of general education demanded may vary according to the nature of the service; and special training may be required for some of the public services, *e.g.*, the police and the forest.

BOSE, Rai CHUNILAL, Bahadur.

University examinations should, as a rule, be the qualification for posts under Government. If commerce, technology, etc., are included in the University course no special tests for the different kinds of ordinary posts under Government would be necessary. Special tests, however, may be introduced for admission into the higher services over and above the University qualifications.

BOSE, G. C.

(*a*), (*b*) and (*c*) Not advantageous to the progress and advancement of learning.

The answer to the second part is "yes."

BOSE, HARAKANTA.

The University examination should not be regarded as the sole test for posts under Government; in the interest of the public services, as well as of the students concerned, I should like to have some sort of special tests instituted for different kinds of administrative posts. The severity of the tests should depend upon the nature and pay of the post; and these several tests should, as far as practicable, be made to correspond to the different university examinations.

BOSE, Sir J. C.

Considering the high ideal placed by the Commission before themselves, and expecting its realisation, one would be justified that the products of the University would be best fitted for the public services. I cannot think of a body better qualified to train and test the qualifications of aspirants to office than the Calcutta University of the immediate future. If further discrimination be needed this may be secured by open competition among the graduates.

BOSE, KHUDI RAM.

It is advantageous in all these respects to regard the University examinations as being fair qualifications for admission to posts under Government departments, supplemented by special or practical training and test as may further be instituted for confirming the probationers in their respective posts. Hurried departmental examinations instituted in this connection have not, so far, conduced to a judicious and unexceptionable selection of worthy and meritorious candidates in most cases.

BOSE, Miss MRINALINI.

I do not think that university examination alone should be regarded as the qualification for posts under Government. Special tests for different kinds of administrative posts under Government may be introduced.

BOSE, RADHIKANATH.

(*a*) I consider that the recognition of university qualifications in the appointment of candidates to posts under Government has proved eminently advantageous to the public services. Many of the minor services which were at one time notorious for their corruption and inefficiency have been steadily improving with the admittance into their ranks of graduates and undergraduates of the University. Education has certainly a value of its own and, even though it may not be sought for its own sake it serves to make its possessors better fitted for positions of trust and responsibility. I see no reason, therefore, why university qualifications should be set at a discount in the selection of candidates for employment in the public services.

In the case of the higher administrative posts requiring more than an average degree of ability I would advocate the holding of supplementary examinations for the purpose of testing the candidates' special aptitude for the particular work in which they are employed. Different kinds of abilities are required for the efficient discharge of duties in the different departments of administration, and the fact of a man's having received the highest university training is not always a guarantee of his fitness for administrative work of every kind. While university qualifications, therefore, should form the basis of a preliminary selection for such posts the candidates so selected should be subjected to a special test before final appointment. Such a course, it seems to me, would go a great way towards increasing the efficiency of the higher branches of our public services.

(*b*) I am inclined to believe that the recognition of university certificates and diplomas as qualifications for employment under Government has indirectly produced a demoralising effect upon our students, inasmuch as it has made them dependent too much upon Government. Thousands of our young men emerge year

after year from the portals of the University without any higher aim in life than that of drudging at the desk in a public office. We want our students to realise that university education is not a meaningless ordeal which, if successfully undergone, will entitle them to a scanty pittance for life, but that its object is to enable them to face the world with greater strength and greater knowledge of the problems which life has in store for them. The way to secure this end, however, is not to shut the doors of Government service against the graduates and undergraduates of the University, but to open out new careers for them. The professions of law, medicine, and engineering have already become overcrowded, and are being choked by annual additions. The duty of our Government and our University is to make provision for technical education on a much larger scale, and direct the energies of our young men in the lines of commerce, industry, and agriculture. Our country badly needs better mechanics, more efficient carpenters, skilful electricians, expert agriculturists—men who will be able to compete with the outside world in the output of their industries. These are the present economic needs of our country, and efforts should be made to bring the system of education into harmony with these needs.

(c) There are some people who do not advocate the practice of regarding university examinations as qualifications for Government posts on the ground that it has had the effect of debasing education by associating it with mercenary considerations. I must say that I do not personally hold such a view. In every modern country the many learn in order to earn, while only the few pursue knowledge for its own sake. If this is so everywhere else why should it be otherwise in a poor country like ours where the problem of bread and butter is a dreadful reality for everybody? Those who are enamoured of knowledge will voluntarily sacrifice all prospects of worldly preferment, and choose to live a life of poverty and philosophic pride in the cause of knowledge. But the compulsory pursuit of a high ideal appears to be an absurdity. While, therefore, it is admittedly the business of a university to encourage genius and foster real scholarship I do not think we should object if many of our youths who come to the University do so with no higher aim than that of merely qualifying themselves for earning a livelihood. The effect of the abolition of the present system of recruitment for Government posts would be that the large number of young men which is now attracted to the University by the prospect of securing these posts would be deprived of the benefits of university education. In a country where the percentage of educated men is already so small I would strongly oppose the adoption of any measure which is likely to check the diffusion of knowledge among the people.

One thing, however, I cannot help observing in this connection, *viz.*, that in selecting university-trained men for the public services care should always be taken to see that the special knowledge, if any, which a candidate has acquired at the University may prove to be of practical value to him in the field of his work. Thus, a man who has made a special study of psychology and ethics may rightly be appointed to a judicial office, but an M.Sc. in chemistry should not be allowed to waste his hard-acquired knowledge of science in detecting fallacies and sifting evidence as a judicial officer. So, a man who has won his degree in economics may well find a place in the revenue department, but an M.A. in Sanskrit would be of little value there. If Government, therefore, would lay down a set of rules distinctly defining the nature of qualifications necessary for appointments in different departments it would, I believe, do good to both parties and, by keeping the best university trained men in touch with their own subjects, would help the production of more specialists of note amongst our countrymen.

CAMERON, M. B.

From all the points of view suggested in this question it seems a very serious mistake that university examinations should be regarded as the qualification for posts

CAMERON, M. B.—*contd.*

under Government, and I should welcome the institution of special examinations for recruitment to the various grades of Government service.

(*a*) From the point of view of the public services themselves the university examinations test, whether it be of matriculation, intermediate, or degree standard, may be either too wide or too narrow in its scope—it may even be both at once—and it certainly is too vague in its results to be of much value as a means of distinguishing between candidates. It is mainly a qualifying test, not at all a competitive test, and, though I should be sorry to see the written examination used as the sole determining factor in the competition for Government service, still I think it can be used with advantage in making a first approximation to those who are best fitted for such employment. The crowd of candidates might, thus, be weeded out down to a number when oral examination and other modes of special inquiry into personal fitness would become possible.

The leading idea in the University examinations, and the courses of study framed for them, is the preparation of the student's mind for further courses of study. This it is that guides the selection of subjects of study, regulates the distribution of emphasis, and determines the grouping into various optional courses. It is very possible, and indeed practically certain, that, if courses were to be framed with the requirements of the various grades of public service as the leading idea, the subjects would be chosen somewhat differently and the emphasis would be distributed differently. Very much, of course, would depend upon the particular grade of Government service for which recruitment was being made.

(*b*) For the students themselves the institution of the special tests for Government service would be a very great advantage. At present, there seems so much of chance in respect of these appointments that the bare possibility of selection affects a very much larger proportion of the students, and for a far longer time than is warranted by any reason. The thought that he has even a very remote chance of a nomination exerts a powerful influence on the student's career at college not only in the way of distracting him from the true ends of study and the work immediately before him, but also in the dissipation of energy involved in running about to secure recommendations or to cultivate patronage.

With specially devised tests of the kind I have in view (a written examination leading to supplementary tests of fitness of another kind) the student's way would be much clearer. If he determined to enter himself as a candidate his course of preparation would run probably to a great extent parallel to his school or college studies and would mean increased application to them. What extra preparation and drill were required would be something confined to a limited time after which his chance of an appointment would either disappear altogether or be increased to such an extent as would justify special effort.

(*c*) There are several ways in which the progress or advancement of learning might be furthered by the institution of special competitive tests for Government service. Not to speak further of the advantage that might come from putting greater stress upon educational attainments I should say that the chief advantage to learning would come from the extra emphasis which would thus be thrown upon the distinctive character of university studies. Anything that brings out more clearly the fact that the University's aim is to supply a liberal education in the full sense of the term is to be welcomed. The examination is, thereby, relegated to its proper place as merely an incident in a university career, and by no means its chief end. The Government competitive examinations, and in particular those graded to suit candidates at the matriculation or the intermediate stage, would, doubtless, call into existence special classes to prepare candidates for them and, thus, we might see in India advanced evening classes—commercial schools or technological institutions, all working for well-defined practical ends. I think it might be counted another advantage to the cause of learning that many who have neither the inclination nor the capacity to

enter upon studies in the true university spirit should thus be diverted away from the further examinations and courses of the University. It would be a gain to all concerned if the University ceased to be the one and only means of satisfying the ambition to get on in life.

No doubt, many university students would still continue to enter themselves for the Government examinations in addition to their own. The courses, as I have said, would probably move parallel to some, possibly to a considerable, extent. The attractions of Government service are, however, strong enough to secure a sufficiency of the abler candidates at each stage and the requirements of the Government examinations would, therefore, be probably somewhat in advance of university requirements at the same stages.

The courses for these examinations would thus form a sort of honours course giving the more competent student the chance of wider and more advanced reading than can be prescribed for the average student. In Allahabad we have no honours courses, and I am not sure that it is desirable or practicable to introduce them at present, but there are certainly great differences in the equipment with which students enter upon the various courses, and the better equipped could easily take wider courses than it is practicable to prescribe for all.

CHAKRAVARTI, BRAJALAL.

Except for special branches of work the education received from the University up to the graduate standard should be sufficient for posts under Government, and no further teaching need be required. Special examinations may, however, be introduced for recruitment to the public services.

CHAKRAVARTI, CHINTAHARAN.

It is advantageous to the public services, to the students, and to the advancement of learning that university examinations should be regarded as the qualifications for lower posts under Government. But special tests for different kinds of higher posts may, with advantage, be instituted among those who have attained a fixed standard of university qualifications.

CHAKRAVARTI, CHINTA HARAN.

It is desirable that for administrative posts under Government certain minimum academic attainments, determined by success in university examinations, should be required of the candidates, whose fitness for the posts may be further ascertained by special tests.

CHAKRAVARTI, Rai MON MOHAN, Bahadur.

I think the University should be dissociated from any direct connection with Government posts. The University ought to devote its attention mainly to the acquirement and diffusion of higher learning. For different kinds of general administrative posts special examination boards would be better, selecting from a wider field and making the test more searching and to the point. For special lines only, as medicine or engineering, university degrees may be accepted in the absence of special schools of enough standing to inspire confidence in their own diplomas.

CHANDA, The Hon'ble Mr. KAMINI KUMAR—CHATTERJEE, The Hon'ble Mr. A. C.—CHATTERJEE, Rai LALITMOHAN, Bahadur—CHATTERJEE, RAMANANDA—CHATTERJEE, Rai Bahadur SARAT CHANDRA.

CHANDA, The Hon'ble Mr. KAMINI KUMAR.

As an ideal there is no doubt that learning should be its own reward, and university examinations should not, as such, be regarded as qualifications for Government posts, but, other things being equal, one with university qualifications should certainly have a preferential claim. If a separate examination be held for Government posts it must be a competitive examination, the standard being high in proportion to the importance of the post. There must not be a parallel system of examinations, success whereat should be a passport for Government posts.

CHATTERJEE, The Hon'ble Mr. A. C.

(*a*), (*b*) and (*c*) Reverse of advantageous.

I would hold for all administrative posts special tests (not managed by the University), with the school-leaving certificate as a preliminary qualification in all cases.

CHATTERJEE, Rai LALITMOHAN, Bahadur.

It is not advantageous to the public services, to the students, or to the progress and advancement of learning that university examinations should be regarded as a necessary qualification for posts under Government. There should be special tests for different kinds of administrative posts under Government. But candidates who have a university degree may, at the option of Government, be exempted from a part of the special examination.

CHATTERJEE, RAMANANDA.

(*a*), (*b*) and (*c*) Yes; under the present circumstances of India, and in the professions and callings mentioned in my answer to question 9.

For filling such posts as those of deputy magistrates, higher clerkships, etc., I would advocate the institution of *competitive* (not merely qualifying) tests. I would insist that only graduates be allowed to compete, or that the tests be such as would require in candidates possession of such knowledge as M.A.'s or M.Sc.'s possess. Similarly, with regard to other posts not referred to in the first paragraph of the reply to this question, I would make the *competitive* examinations real tests of such attainments as the salaries attached to the posts would justify one to expect.

Such maxims as "knowledge is its own reward", "value knowledge for its own sake", etc., are certainly good in their way; but we ought not at the same time, to lose sight of practical considerations. The British people value knowledge, but also know that it has a money value. For instance, Lord Haldane in his address on the "Conduct of Life" at Edinburgh University (November, 1913) spoke "in particular of the mental and moral sorrows of an *undergraduate* who has to make his *choice of an occupation* in life and rule himself *in preparation for it*. His university career is the training for a wider permanent career, and the *moment a boy* fresh from school *enters a university* he becomes conscious of this fact in a sense never before experienced..... The very *degree* that he has now begun to work for will be one of the *coins with which he will purchase a position in life*. His degree—so he thinks, and *it is well* that he should *think so*—will be a certificate of accomplishment which he will be able to wave like a banner in the struggle for life."

CHATTERJEE, Rai Bahadur SARAT CHANDRA.

University training is certainly advantageous, but there should be, in addition, a special training adapted to the requirements of the different branches of the services.

Yes; to a certain extent.

CHATTERJEE, SATIS CHANDRA—CHATTERJEE, SUNITI KUMAR—CHATTERJI, MOHINI MOHAN—CHAUDHURI, The Hon'ble Justice Sir ASUTOSH—CHAUDHURI, BHUBAN MOHAN.

CHATTERJEE, SATIS CHANDRA.

In connection with appointments under Government I would advocate the practice of instituting special tests, with this qualification, however, that such special tests, combined with some university examinations, should be regarded as the qualification for posts under Government.

CHATTERJEE, SUNITI KUMAR.

(*a*) It is certainly advantageous to the public service.
(*b*) For students this would be a strong incentive to application and honest work.
(*c*) I cannot see how the progress and advancement of learning will suffer in consequence.

The best plan would be to do away with nominations altogether and to institute competitive examinations of a special character for the various departments of public service insisting, at the same time, upon the candidates having graduated or passed the intermediate or matriculation examination of the University according to the responsibility attached to the service. Admission to such examinations should be free and easy.

CHATTERJI, MOHINI MOHAN.

The object of university education being to develope, as far as practicable, a uniform type of leadership for the people the Government of India must always retain a sufficient control to prevent the provinces from becoming separate nations with separate ideals. The moral claim of British rule will be much affected by such a result.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

University examinations should be regarded as qualifications for posts under Government. I would advocate the practice of instituting special tests for different kinds of administrative posts under Government in addition to university examinations, not apart from them. There are not sufficient openings for our young men and the public services naturally attract a large body of our students. They help the development of the University and our educational institutions, and are beneficial to the students. Indian graduates have raised the tone and efficiency of the administration of our country. It is believed by some of us that they are capable of replacing the Indian civil service. If they are not they ought to be given such special training, where necessary, so as to be able to replace it.

CHAUDHURI, BHUBAN MOHAN.

Education for education's sake should be the guiding principle of all students, but there must be also fields of action for the practical application of the knowledge acquired by students in their university career; otherwise, education becomes fruitless. Hence, academic qualifications should serve as passports for entering into the public services, and the efficiency of the services also demands that it should be so. But it must be admitted that to enter into the sacred precincts of the University with the sole object of securing Government posts defeats the ends of education. This state of things will continue as long as the openings are limited and there is keen competition for posts and people do not understand the value of education. Special tests should be instituted for different kinds of administrative posts, but they should be supplementary to the university examinations, and not subversive of them.

CHAUDHURI, HEM CHANDRA RAY—CHAUDHURI, The Hon'ble Babu KISHORI MOHAN—CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY—CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur—CHOUDHURY, Rai YATINDRA NATH.

CHAUDHURI, HEM CHANDRA RAY.

Yes; I consider that university examinations should be included among the qualifications necessary for posts under Government.

The answer to the second part of the question is in the affirmative.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

The requirements of the public services are so various that the possession of a university degree cannot be accepted as the sole passport to any service. It is taken only as an index of general culture, but there should be special examinations in special subjects with reference to the requirements of such services. For ministerial officers success in the matriculation examination may be accepted to be sufficient, as at present.

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY.

It would, no doubt, be advantageous to the public services and to the students, as well as to the progress and advancement of learning, if posts under Government were ordinarily disposed of by consulting the results of university examinations. The institution of special tests under the competitive system might also be of advantage to all interests concerned in case such tests or special training might, for special reasons, be considered essential in any service.

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur.

It is advantageous neither to the public services nor to the students nor to the progress and advancement of learning that university examinations should be regarded as the qualification for posts under Government. All the evils existing under the present system are mostly attributable to university degrees being considered as passports to places under Government service and I have, in my answer to question 1, indicated how the interests of sound education have suffered on that account. I would, therefore, strongly suggest that special tests be instituted for different kinds of administrative posts under Government. I would also suggest that a special school-final course might be devised for the benefit of those students who pass the matriculation with employment as their chief aim in view. For this a class might be opened in every high school, instruction in special subjects being given to students for a period of two years. This provision may be made to start with in zilla and other Government high schools and, possibly, other schools as well, with Government's recognition. Those who completed this course might be taken into the subordinate services. If this could be given effect to I dare say a large number of students whose main interest in the examination is to qualify themselves for some employment will abstain from joining the University. Also this arrangement will be helpful to the poorer sections of the people who cannot afford to receive university education.

CHOUDHURY, Rai YATINDRA NATH.

I am distinctly of opinion that all higher appointments under Government should be reserved for the graduates of our University. There may be some special examination for testing the merits of candidates in some special subjects not covered by the University curriculum. In these cases only Government may make their own

CHOUDHURY, Rai YATINDRA NATH—*contd.*—CHOWDHURI, DHIRENDRANATH—COCKS, S. W.

arrangement, otherwise the general rule should be that success in the University examinations is the only road leading to higher Government appointments. So far as the lower appointments are concerned I think there may be a separate school-final examination. These school-final examinations can be introduced without upsetting the present system, and duplicating our educational institutions in the following way. Up to the third class of the higher English schools the subjects to be studied by students may be the same. After this there may be a bifurcation for the next two higher classes; one set may take those students who would go for the University, a different set for those who would not carry their studies further. For the control of these two sets of separate higher classes there should be a joint board composed of an equal number of members from the senate and from a committee to be newly created by Government consisting of members, a majority of whom would be non-official Indians.

I am sure if the course herein recommended be adopted it would be advantageous to our countrymen and to the public services alike. There need not be the least apprehension that the system I propose would, in any way, retard the progress and advancement of learning. It would, moreover, do away with nepotism, which is an unavoidable consequence of nomination in the matter of Government appointments.

CHOWDHURI, DHIRENDRANATH.

That university examinations are regarded as the qualification for posts under Government is injuriously affecting the good of the country in various ways. Education has turned out a mercenary affair. Pursuit of knowledge for its own sake is the sure test of the progress and advancement of learning. Under the present circumstances, it is not possible to determine who are the votaries at the altar of the goddess of Learning and who are the worshippers of Mammon. Let there be two channels and the chaff would be easily separated from the corn. And that would do good to all parties concerned. The present system is injurious to the aspirant after Government service because he is to burden his memory with certain things which would be of no practical use to him. Government do not get a servant technically well equipped for the department. And it is often that the disappointed man is given a berth in the Education Department, which causes not a little harm to the cause of education. Because it is more often than not that a selection is made from ultra-educational considerations. It is the fault of the present system that the intellectual advancement of the country is not commensurate with the number of graduates the University manufacture every year. But something is better than nothing. If Government servants are selected by competitive examinations based on relatively high educational qualifications suited to the requirements of different departments, and not by nomination in most cases as now, then only I would urge my point. But, in no case is a change welcome which would be an impediment in the way of the spread of high education in the country. Such a change, in every case, is a change for the worse.

COCKS, S. W.

I shall take the second part of this question first. Assuming that special tests for different kinds of administrative posts under Government are to be instituted it is clear that the Government test must either be adapted to the qualifications possessed by the college student, or will encourage the growth of institutions preparing pupils for the special tests—"crammers" in fact. The former is undoubtedly the lesser evil, though it is a sufficiently serious evil since it must affect the student's choice of subjects during his university career. It is well nigh impossible so to arrange the marks for the various branches of a civil service examination that every student who intends to earn his living in Government employ can pursue his natural bent without some degree of injury to his

prospects. This is clearly bad for the student and bad for the advancement of learning. It tends to make learning a means to an end not an end in itself, and to encourage the student to "cram" subjects for which he has little taste solely on account of their value as judged by the marks assigned to them. So far as the student's choice of subjects is forced, and his views as to the purpose of education is warped, the result is bad for the public service also.

The system at present in vogue in India, where university examinations are regarded as the qualification for posts under Government, is less harmful than the alternatives briefly discussed above since the student's choice of subjects is unfettered, but it does inevitably encourage in the student's mind purely utilitarian views of education. The remedy which suggests itself is that Government should accept university examinations as the initial qualification for Government appointments but should institute special tests for the various departments in subjects, preferably outside the University curriculum, which would enable an estimate to be formed of the candidate's suitability for employment in the department he has selected. This would do something to destroy the notions that the chief, if not the sole, value of a university education is its market value, and that the man who has passed a university examination has a moral claim on Government for a livelihood.

COLEMAN, Dr. LESLIE C.

(*c*) I think special tests should be instituted for all scientific posts under Government.

COVERNTON, The Hon'ble Mr. J. G.

As has been indicated in answering a previous question the view that to gain a post under Government is a natural and necessary object of a university career is widely spread and deeply engrained in the Indian mind. But, so it is elsewhere. As long as this aim remains dominant in the minds of a large majority of those who go to college the present conditions will be prolonged and the idea of study and research for its own sake, or for practical purposes, apart from obtaining a Government post, will be regarded as of secondary importance. An obvious result will be that commercial, scientific, and other non-official careers will not attract the number of suitable university men that is desirable if the country is to progress. Law, to which Indians take with unwholesome alacrity, will remain a striking exception. The difficulty is that to change the present conditions means changing a good deal more than mere university organisation and methods. There seem to be two main factors which determine the rush to Government service. First, that once an entrance is gained, such service, though not particularly lucrative, means a secure position—almost too secure—and progress, though it may be slow and limited in range, is fairly certain; also there is a traditional prestige attaching to Government employment, even of a lower kind, which finds no counterpart at any rate in Anglo-Saxon countries. Commerce, engineering, and other kindred professions are more speculative and, if success on a larger scale is to be attained, demand, in addition to considerable ability, either capital or phenomenal luck. Employment in the lower grades is uncertain, and tenure depends upon the good-will of an individual employer. Pension which accompanies almost all kinds of Government service is usually conspicuous in non-official careers by its absence. Secondly, the large majority of those who enter a university belong to a limited number of castes and classes, few of which have any traditional liking or ability for practical careers in business or professions involving a knowledge of applied science. There are, of course, individual exceptions, and these are becoming more numerous. But, so long as the universities are attended by students of castes and classes whose idea of culture is predominantly literary and (if I may say so) sedentary, while other castes and classes, having a traditional affinity with business or practical careers the basis of which is manual labour in some form or

other, prefer to avoid a university career, or cannot find suitable scope therein, no radical change in the conditions can be expected.

Still, it does not necessarily follow that university examinations should not be accepted as qualifications for posts under Government. In backward provinces one reason for doing so was to encourage a larger attendance at the University, *e.g.*, in Burma. For this reason, special examinations for Government service were given up in favour of the university tests. In Bengal, however, such encouragement is probably unnecessary. Even if the university examinations *per se* did not qualify for Government service the university courses should probably be the foundation on which the special Government tests should be based. On the other hand, to refuse to accept the university examinations *per se* as a passport to Government service, and to institute special tests for different kinds of posts under Government, would tend to break down the idea that the main benefit to be got from a university career is admission to Government employment. Special tests instituted by Government might enable it to make a better selection of men for posts of a special character. For the general administrative posts, however, no very specialistic examination would be either necessary or desirable. The tests for admission to such posts in Government service should be of a reasonably general character, and should be co-ordinated with university studies.

CROHAN, Rev. Father F.

It would be advantageous in every way if no post under Government were given except after holding a special competitive test. To this only graduates, or such as have passed the intermediate examination, should be admitted. This would stimulate students to acquire not only the necessary degrees, but also the knowledge and experience that these degrees suppose.

CULLIS, Dr. C. E.

It has been advantageous in the past in all these respects, and has been one of the chief causes of the growth of university education.

At the present stage, the introduction of special tests for special classes of minor appointments under Government would be advantageous if it involved an improvement in secondary education without any prejudice to university education. The retention in secondary schools of students who do not aim at, or are insufficiently qualified for, a complete university training would tend to enhance the efficiency of university teachers; and the special tests would regularise the methods of appointment.

CUMMING, The Hon'ble Mr. J. G.

I beg to forward herewith some statistics which have been worked out. The detail sheets give the figures for each grade in all the recognised services, and the summary at the top shows the proportion of graduates in each of the services. Under the head of graduates I have included those who have taken degrees not only in arts, but in law and engineering. The figures relate to a civil list of the year 1917 but, for practical purposes, the proportions are equally good at the present moment (January, 1918). You will notice the high percentage in the provincial judicial service, where the preliminary qualifications of B.A. B.L., is essential; also that in recent years we have recruited more graduates at the bottom of the provincial executive and the provincial educational services.

CUMMING, The Hon'ble Mr. J. G.—*contd.*

SUMMARY.

Comparative statement of percentage of graduates in different services.

	Percentage of graduates.	REMARKS.
Provincial Judicial Service	99	
Provincial Executive Service and Probationary Deputy Collectors	88·7	
Subordinate Executive Service and Probationary Sub-Deputy Collectors.	77	
Provincial Educational Service	89·7	
Subordinate Educational Service	64·7	
Provincial Excise Service	46·6	
Subordinate Excise Service	41·2	
Registration Department	9·7	
Provincial Police Service	34·4	

DETAIL FIGURES.

The Provincial Judicial Service.

Service.		Grade.	Graduates.	Bar.-at-Law.	TOTAL.
Subordinate Judges	Rs. 1,000	I	7	...	7
Ditto	800	II	14	...	14
Ditto	600	III	28	...	28
Officers acting as Sub-Judges	...	..	6	...	6
Munsifs	500	I	14	1	15
Ditto	400	II	48	1	49
Ditto	300	III	66	...	66
Ditto	250	IV	70	...	70
Ditto	200	V	39	...	39
Officers acting as Munsifs			55	1	56
TOTAL	...	...	347	3	350

	Graduates.	Total of service.	Percentage of graduates to service.
Judicial Service officers of all grades	347	350	99

CUMMING, The Hon'ble Mr. J. G.—*contd.*

The Provincial Executive and the Subordinate Executive Services.

Service.		Grade.	Graduates.	Others.	TOTAL.
	Rs.				
Provincial Executive Service, Deputy Magistrates.	800	I	4	...	4
Ditto . . .	700	II	7	...	7
Ditto . . .	600	III	15	...	15
Ditto . . .	500	IV	42	6	48
Ditto . . .	400	V	63	7	70
Ditto . . .	300	VI	62	10	72
Ditto . . .	250	VII	66	11	77
Probationary Deputy Collectors .	...	...	18	1	19
TOTAL .	...	...	277	35	312

	Total of graduates.	Total of service.	Percentage of graduates to service.
Deputy Collectors and Probationary Deputy Collectors .	277	312	88·7

	Rs.				
Subordinate Executive Service, Sub-Deputy Collectors.	250	I	9	2	11
Ditto . . .	200	II	28	6	34
Ditto . . .	175	III	45	20	65
Ditto . .	150	IV	47	16	63
Ditto . . .	100	V	39	9	48
Probationary Sub-Deputy Collectors .	...	...	14	2	16

	Total of graduates.	Total of service.	Percentage of graduates to service.
Sub-Deputy Collectors and Probationary Sub-Deputy Collectors.	183	237	77

CUMMING, The Hon'ble Mr. J. G.—*contd.*

The Provincial Educational Service.

Service.		Grade.	Graduates of Indian universities.	Graduates of Foreign universities.	Others.	TOTAL.
Provincial Educational Service	Rs. 700	I	...	5	...	5
Ditto	600	II	6(*a*)	2	...	8
Ditto	500	III	7(*b*)	1	2	10
Ditto	400	IV	13	...	...	13
Ditto	350	V	18	...	...	18
Ditto	300	VI	17	2	3	22
Ditto	250	VII	28	3	2	33
Ditto	200	VIII	52(*b*)	3	11	66
TOTAL	...	...	141	16	18	175

	Total of graduates of all classes.	Total of service.	Percentage of graduates to service.
Provincial Educational Service officers	157	175	89·7

The Subordinate Educational Service.

Subordinate Educational Service	Rs. 250	I	11	8	19
Ditto	200	II	22	10	32
TOTAL	...	...	33	18	51

	Total of graduates.	Total of service.	Percentage of graduates to service.
Subordinate Educational Service officers	33	51	64·7

CUMMING, The Hon'ble Mr. J. G.—*contd.*

The Provincial Excise Service.

	Grade.	Graduates.	Others.	TOTAL.
Deputy Commissioner of Excise and Salt	Special Grade.	1	2	3
Superintendents on . . . . Rs. 700	I	...	1	1
Ditto 600	III	2	2	4
Ditto (time-scale) 250—500	...	11	11	22
TOTAL . .	...	14	16	30

	Total of graduates.	Total of service.	Percentage of graduates to service.
Provincial Excise Service	14	30	46·6

(*a*) Includes one L.C.E. (*b* Includes one B.E.

The Subordinate Excise Service.

Service.	Grade.	Graduates.	Others.	TOTAL.
Inspectors	I	...	...	...
Ditto	II	...	1	1
Ditto	III	...	3	3
Ditto	IV	2	5	7
Ditto	V	...	4	4
Ditto	VI	1	7	8
Ditto	VII	18	10	28
TOTAL .	...	21	30	51

	Total of graduates.	Total of service.	Percentage of graduates to service.
Subordinate Excise Service	21	51	41·2

CUMMING, The Hon'ble Mr. J. G.—*contd.*

The Provincial Police Service.

	Recruited direct.	Grade.	Graduates.	Others.	TOTAL.
Deputy Superintendents of Police Rs. 500	2	I*	1	2	3
Ditto . . 400	1	II	1	2	3
Ditto . . 300	2	III	1	6	7
Ditto . . 250	9	IV	8	11	19
TOTAL	...	...	11	21	32

	Total of graduates.	Total of service.	Percentage of graduates to service.
Provincial Police Service	11	32	34·4

* Direct recruitment is made to the last grade of Deputy Superintendents. Inspectors are recruited from men in the rank of Sub-Inspectors of Police.

The Registration Department.

Service.	Grade.	Graduates.	Others.	TOTAL.
Inspectors of Registration offices . Rs. 300—400	Special grade.	...	4	4
Registrar of Calcutta . . . 400	...	...	1	1
Sub-Registrar of Calcutta . . 250	...	...	1	1
District Sub-Registrars . . 250	I	...	3	3
Ditto ditto . . . 225	II	...	7	7
Ditto ditto . . . 200	III	1	6	7
Ditto ditto . . . 175	IV	...	8	8
Sub-Registrars 150	I	...	37	37
Ditto 125	II	2	92	94
Ditto 100	III	2	93	95
Ditto 75	IV	28	107†	135
Ditto 50	V	3	30	33
Probationers 30	...	9	25	34
Sub-Registrars paid by commission	...	...	5	5
TOTAL	...	45	419	464

	Total of graduates.	Total of service.	Percentage of graduates to service.
Registration Department	45	464	9·7

† Includes 2 B L.

CUNNINGHAM, The Hon'ble Mr. J. R.—DAS, Rai BHUPATINATH, Bahadur—DAS, Dr. KEDARNATH—DAS GUPTA, HEM CHANDRA—DAS GUPTA, KARUNA KANTA—DATTA, A. C.

CUNNINGHAM, The Hon'ble Mr. J. R.

I hold it at present, on a balance of utility, but by no means as a matter of principle, to be advantageous to all concerned that university examinations should be regarded as the qualification for posts under Government. But the matriculation and intermediate examinations should be displaced from significance in this connection as soon as circumstances permit. The day seems distant when it will be possible to replace the other examinations without loss.

I do not advocate at present the practice of instituting special tests.

DAS, Rai BHUPATINATH, Bahadur.

Special tests for different kinds of administrative posts under Government may be instituted.

DAS, Dr. KEDARNATH.

I hold that university examinations should be regarded as the qualification for posts under Government. I would not advocate the practice of instituting special tests for different kinds of administrative posts under Government.

DAS GUPTA, HEM CHANDRA.

I think it to be advantageous

(*a*) to the public services,
(*b*) to the students, and
(*c*) to the progress and advancement of learning,

that university examinations should be regarded as the qualification for posts under Government. But, at the same time, it must be understood that university examinations, should not be considered as the only qualification for all posts under Government, while there are many posts the appointment to which should be made only on the result of the University examinations.

I would advocate the practice of instituting special tests for many kinds of administrative posts under Government, with a certain minimum university qualification, the minimum being decided according to the post.

DAS GUPTA, KARUNA KANTA.

This matter has been partly alluded to in my reply to question 6. Graduates and undergraduates should be eligible for appointment in the public services. University education should also be regarded as indicative of one's fitness for a course of study in law, medicine, engineering, etc.

DATTA, A. C.

No; university examinations, except those for the degrees, ought to be recognised as a standard of fitness for employment in the public services. There should be separate examinations for such purposes, beginning with the school-final examination, to be conducted by the Government Department of Education, and *not* by the University.

DE, HAR MOHUN—DE, SATISCHANDRA—DE, SUSHIL KUMAR—DEY, BARODA PROSAUD —DEY, N. N.

DE, HAR MOHUN.

(*a*), (*b*) and (*c*) I hold it to be advantageous.

I am for instituting special tests for different kinds of administrative posts under Government.

DE, SATISCHANDRA.

No special tests are necessary, as these are also examinations. See my answer to question 9.

DE, SUSHIL KUMAR.

University education up to a certain standard (say B.A. or B.Sc. pass or some other standard to be specially fixed by a committee of experts) ought to be the minimum test for qualification to posts under Government. If this is done there will be a considerable reduction of overcrowding in the higher classes by the steadily growing class of indifferent students whose sole object is to get a degree as a means for entering Government service. I would advocate the practice, adopted in many countries, of the instituting of special tests for special posts under Government. The University standard must also differ in the case of the different services. But it should be made high in the case of higher administrative posts.

DEY, BARODA PROSAUD.

University examinations should be regarded as the qualification for posts under Government in the interests of the public services, of the students, and of the progress and advancement of learning. Instead of instituting special tests for different kinds of administrative posts under Government it would be better to require persons with university qualifications, after admission to service, to pass certain departmental tests upon the results of which their promotion in the service will depend.

DEY, N. N.

(*a*) I do not think it to be advantageous to the public services that university examinations should be regarded as the necessary qualification for posts under Government. For, there is no doubt that, if special competitive examinations be instituted for Government services, that would secure for the respective services picked men.

(*b*) To students the institution of special competitive examinations would not stand in their way; for, university graduates will be attracted in large numbers and they will, no doubt, secure the higher appointments by passing the examinations—as in the case of the Indian civil service. Whereas those students who had not had the advantage of a university degree may stand side by side in competition and secure good jobs under Government.

(*c*) If the passing of university examinations be regarded as qualifications for Government posts that will not be advantageous to the progress and advancement of learning; for, then, many students would come in for university degrees simply to take a chance, their ultimate ideal being the securing of good posts, and not real learning, and there would be much unnecessary overcrowding in colleges.

DHAR, Rai Sahib BIHARI LAL—D'SOUZA, P. G.—DUNN, S. G.—DUNNICLIFF, HORACE B.

DHAR, Rai Sahib BIHARI LAL.

(*a*), (*b*) and (*c*) Yes; advantageous.

Yes; I advocate further the institution of special tests amongst those having certain university qualifications.

D'SOUZA, P. G.

It is certainly desirable to have separate tests as qualification for posts under Government though the University tests may be recognised in order to admit the holders of the degree to sit for the Government examination.

DUNN, S. G.

Government should certainly institute its own tests. The fact that the university degree is at present a passport to Government service operates adversely :—

(*a*) To the public services, in that candidates for them have no special qualifications for their posts and have had no special training. They are neither men of learning nor men of business so far as their education is concerned; they owe whatever administrative ability they have to natural temperament, or to subsequent experience, not to their university training.

(*b*) To the students, who take up the subjects, which will enable them to get a degree as quickly and easily as possible; they prefer the possession of a degree to the possession of learning.

(*c*) To the progress and advancement of learning, since professors of the University who attempt to do more than cram for the examinations are regarded as amiable enthusiasts, but unpractical teachers. Research in any subject may be respected, but is looked upon as a work of supererogation. A public demand arises for cheap and inferior university education on a large scale in order that every one may have a chance of obtaining Government service; any attempt to raise the University to a true university level meets, accordingly, with widespread opposition.

DUNNICLIFF, HORACE B.

I do not consider it advantageous to the public services or to the candidates for employment that university examinations or competitive examinations *alone* should be the deciding factor in nomination for Government employment. In the first place, it is difficult, if not impossible, to determine which is the best candidate for an administrative post solely by papers intended to be answerable by the *average* candidate. One particularly wishes to guard against the man whose sole recommendation is that he has a phenomenal memory, who, having spent all his time "cramming", has had neither time nor inclination to enter into the social and athletic activities of his college. He has, therefore, in all probability, no idea of how to control either himself or his fellow-men when called upon to do so. A successful college captain of some manly game, who possesses average intelligence and application, should receive marks in respect of his ability to control a team of his fellow-students. During the years a student spends at college his teachers, his tutors and the presidents of games in which he has taken part have a chance of judging of his "character" and of his ability to command. I would, therefore, advocate the introduction of "personality" marks to be assessed by those best fitted to judge the candidate's worth. This would have to be done in the most confidential manner, and reasons given by those consulted for their support (or otherwise).

DUNNICLIFF, HORACE B.—*contd.*—DUTT, BAMAPADA.

It is a fact to be most deeply deprecated that so many teachers give often totally undeserved and flattering certificates. So much is this felt that a senior officer once asked me why all teachers regarded their pupils as perfect, and added that he very seldom felt that the ordinary certificates could be relied upon and that, if he wanted the truth about a person, he always sent along a "confidential" to enquire. I would venture to suggest that there are some highly placed officials who appear to think that anyone can teach, anybody is capable of the successful management of a college club or boarding-house, but I submit that this work is of a highly specialised kind and requires men of a particular calibre. More than high academic honours should be required of the educational officer in India. They have extra-mural duties involving serious responsibility. The teacher meets the young man at his most impressionable age and should cultivate his intimate acquaintance so far as lies in his power. Hence, if he discharges his duties faithfully, he should be in the best position to judge of a student's personality, and his opinion should be sought when it is proposed to appoint a student who has been in his charge to a responsible position. The system of selection by examination puts "cramming" at a premium.

In submitting the suggestion that "personality" marks should be given I am aware that the matter would meet with much opposition, but the time has come when, in addition to confessing that the examination system of selection is bad, it is incumbent on those concerned to try to offer practicable suggestions for the amelioration of a situation which is accepted only *faute de mieux*. Something of a similar kind is done in the case of the Rhodes scholarships and, so far as I am aware, the system has worked remarkably well.

(c) As regards this part of the question I may say that I consider that the advancement of learning has little to do with the question.

Competitive examinations (*e.g.*, the Indian civil service examination) do not bristle with paying subjects of much practical importance to the civilian when he comes to India. For example, the best paying subjects were, and probably still are, classics and mathematics. In fact, so deeply impressed are some people with the old ideas that, even in the face of the revelations of the last three years' war, I heard a prominent and clever man, only the other day, advocating a classical education as more valuable than a scientific one. The unsuitability of the subjects of an examination for the future work of the successful candidate is one which could be altered. With this end in view it would be a distinct advantage if the subjects of all competitive examinations for administrative posts were specially selected. If examination is to be the test by which candidates are selected for administrative posts I recommend the institution of special tests for different classes of posts. In matters in which the advancement of learning is of paramount importance and specialisation is a *sine qua non* appointments are frequently filled by nomination and, rightly so. Such appointments as fall open in the forest service, the educational service, are among those still filled by selection. However, at present, there are so few of such posts that the question has more importance from the standpoint of future legislation than for existing appointments. Vigorous steps are being taken to develope the indigenous resources of the country, and the future should hold out very hopeful prospects to the technical scientist.

It is to be hoped that the recommendations of the Indian Munitions Board and the Industries Commission will provide new openings of a technical nature, and I strongly recommend that such appointments be filled entirely by selection and that those best qualified to express an opinion on the merits of the prospective candidates be consulted in every case.

DUTT, BAMAPADA.

I do not think that university examinations should be regarded as the qualification for posts under Government. It may be advantageous to students, but may affect the progress and advancement of learning for, in that case, those who do not desire to have culture and learning, but seek university education as a means to the end of receiving posts under Government, will be, naturally, eliminated from the University

DUTT, BAMAPADA—*contd.*—DUTT, P. N.—DUTT, REBATI RAMAN—DUTTA, PROMODE CHANDRA—European Association, Calcutta—FAWCUS, G. E.

and this will facilitate the progress and advancement of learning as professors will have to deal with a comparatively smaller number of students, and will be in a position to give greater attention to the general advancement of students.

Yes; I would advocate the practice of instituting special tests for the different kinds of administrative posts under Government.

DUTT, P. N.

(*a*) and (*b*) My answer is "yes"; and it is supported by the experience of the past. The good men at the University have generally done well as public servants and the exceptions are few. As things stand at present, we have very few capable men outside the University in this country, and special tests are perfectly unnecessary.

DUTT, REBATI RAMAN.

In India the public services are likely to snare away all our best youths and a separate examination for the public services in India, in its present economic and political conditions, is likely to prove prejudicial to the progress and advancement of true learning. Nor, at the same time, can it be said that mere academic excellence in one branch of arts or science is the surest criterion of fitness for the public services, but this is certainly better than mere personal impression at an interview and black-and-white reports from known men. Heredity, again, is not the surest guide. The present arts course in the University undoubtedly gives a good training, but the science course is deficient for this purpose. With the creation of new universities, however, in the province, the question of a separate examination has to be faced, but such an examination should take place after the completion of the University course. It would be best to have an examination, so far as the executive service was concerned, covering a wide syllabus on the lines of the Indian civil service, open to competition amongst honours B.A.'s and those who had passed with distinction and first and second class M.A.'s. A similar examination may be held for the police service, open to competition by graduates alone. For educational appointments, on the teaching and administrative side, academic excellence in the present examinations is the best guide, and the appointments should mostly be made upon the recommendations of the University.

DUTTA, PROMODE CHANDRA.

(*a*), (*b*), and (*c*) Yes; special tests should, if any, be in addition to the University qualifications.

European Association, Calcutta.

We hold strongly that university examinations should not be regarded as the qualification for posts under Government, and that special tests should be instituted which should not be exclusively written examinations.

FAWCUS, G. E.

I am inclined to think that the present system tends to make the majority of students go to college not with the idea of study, but with a view to passing an examination which will qualify them for a certain class of posts. This must tend to

FAWCUS, G. E.—*contd.*—FORRESTER, Rev. J. C.—GANGULI, SURENDRA MOHAN—GANGULI, SYAMACHARAN.

encourage cramming for examinations. Such cramming might be lessened if a school-leaving certificate (showing the nature of a student's work throughout the year, and his character, as well as the results he achieved at the annual examinations) were substituted for the matriculation certificate as a qualification for those posts for which the latter is now required.

FORRESTER, Rev. J. C.

I consider the present system of regarding university examinations as the qualification for Government posts exceedingly detrimental to the progress and advancement of learning because:—

(i) The principal object of most students is to qualify for a Government post for they are usually sent to college by their parents with the express purpose of securing a fairly well-paid situation. The result is that the educational value of learning is ignored. A course in college is regarded as an avenue to material advancement.

(ii) This calls in a false sentiment of pity; it gives rise to the following kind of argument:—"The student is poor; if he fails in this examination his prospects will be blighted. Therefore, he must be allowed to pass, if possible".

(iii) Many youths are sent into college who are quite incapable of proceeding to a degree. They are more or less content with passing the intermediate examination. The disparity in the number of students who pass the intermediate examination and who pass the degree examination is very marked. This indicates something abnormal.

I should institute special tests, to be conducted by Government, for admission to Government service. As a necessary preliminary to admission to the higher of such tests the possession of a university degree might be required.

GANGULI, SURENDRA MOHAN.

University examinations, except in particular cases, should not be regarded as the qualification for posts under Government. A minimum qualification—say that of the matriculation standard—may be demanded of those seeking responsible posts. For different kinds of administrative posts under Government special tests should be instituted.

GANGULI, SYAMACHARAN.

I think it would be advantageous

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning,

if success at university examinations were regarded as a necessary qualification for posts under Government. Special tests, over and above university qualifications, are needed for different kinds of posts. For appointments, for instance, to the provincial executive service and the subordinate executive service, a special examination would be useful for getting the best men available. The University in Bengal is now allowed to nominate two distinguished graduates every year for admission to the provincial executive service. Selection by the University can be no easy matter. Out of graduates in different subjects and graduates of different years it can by no means be easy to make a choice. Then, again, Government has to select one out of the two men nominated by the University. How can Government be guided? Patronage has to come in here, as patronage is the ruling factor for selection out of the candidates in each district. The equitable course of selection by competitive examination is, doubtless, best for all concerned.

GEDDES, PATRICK—GHOSA, PRATAPCANDRA—GHOSE, Sir RASH BEHARY—GHOSH, BIMAL CHANDRA—GHOSH, DEVAPRASAD.

GEDDES, PATRICK.

(*a*), (*b*) and (*c*) As disadvantageous to all.

But I should, of course, expect that any Government, in selecting its servants, will attach all reasonable value to the university record of a candidate, as a good part of his general record, and of their own estimate of them. Since the honesty of examiners is general and recognised why not also of estimators ? each acquainted with the class of duties he will have to select for, the kind of preparation required, the type of character and psychology, and, of course, to a reasonable extent, the physique as well.

GHOSA, PRATAPCANDRA.

I would advocate the practice of other countries: special tests for different kinds of administrative posts.

But this is beyond my ability.

GHOSE, Sir RASH BEHARY.

All Government appointments should be thrown open to competition, admission to competitive examinations being limited to persons with prescribed university qualifications.

GHOSH, BIMAL CHANDRA.

Considering the practice and the traditions of more than half a century, and considering the fact that all secondary education is under the control of the University, it is to be admitted that *it is advantageous* at present

(*a*) to the public services, and

(*b*) to the students,

that university examinations qualify for posts under Government. Only, such examinations should be supplemented by special tests after a period of probation. For instance, admission to the medical service (the so-called provincial medical service) should only be granted to M.B.'s who have served as house officers or clinical assistants in hospitals. And admission to the provincial educational service should take place generally after proved ability as a teacher.

(*c*) The progress and advancement of learning does not seem to depend upon the fact that university examinations qualify for administrative posts, nor is it much affected by the alterations of administrative posts, except indirectly. If university chairs and lectureships and demonstrators' posts and the posts in the educational services were adequately remunerated and facilities were given for study and research such progress and advancement would come easily. Education is spreading fast enough to raise a large band of young men for whom administrative posts under Government have no great attractions.

GHOSH, DEVAPRASAD.

There may be certain services which require culture of a general character, and university examinations may serve as a test of fitness for those services. But posts of an administrative kind which involve some executive capacity and very little literary or scientific knowledge may be recruited from candidates who pass a competitive departmental examination suited to those services. So far as posts under

GHOSH, DEVAPRASAD—*contd.*—GHOSH, Rai HARI NATH, Bahadur—GHOSH, JNANCHANDRA—GHOSH, Rai Bahadur NISI KANTA—GILCHRIST, R. N.

Government are concerned the system of nomination should be abolished as it lends itself easily to favouritism and jobbery; and, in its stead, competitive examinations, on strictly non-racial lines, should be instituted.

If most of the specialised Government posts are thus recruited from successful candidates at such departmental examinations then the congestion at the University may be appreciably lightened. For, naturally, the majority of students enter the University in order to equip themselves for service of some kind; and, if services are otherwise obtainable, this class of student will automatically stay out of the University and the task of the University will be somewhat lighter.

In conclusion, I wish to draw attention to one rather delicate point that has been creating a good deal of bad blood and discontent in educational circles for some time past. I allude to the racial distinction between Europeans and Indians, which has virtually crystallised into that between the Indian and provincial educational services. The educated community of Bengal feel that, so far as education is concerned and educational appointments are concerned, Government ought to be guided by purely academical considerations, and not by any fictitious political motives, that is to say, Europeans and Indians should both be appointed to posts, both high and low; and no consideration of the predominance of the ruling race ought to be thrust in. That is something which no self-respecting community can tolerate. And it is partly for this reason that the best of the Indian graduates do not find it possible, consistently with their dignity, to join the educational line; and another reason very closely allied to the above is that the part of the educational service which is generally recruited from Indians, *viz.*, the provincial educational service, is very poorly paid. And the deplorable result ensues, from the standpoint of the spread and efficiency of education in this country, that the best men, the men of first-rate ability, choose other professions which are more independent and more paying.

One essential thing, therefore, that requires to be done is to abolish these artificial distinctions, and to make the educational profession such that it will attract men of sound scholarship and sturdy independence.

GHOSH, Rai HARI NATH, Bahadur.

Special tests are certainly good for some, if not all, posts, *e.g.*, judicial and executive work, for which there ought to be such tests.

GHOSH, JNANCHANDRA.

All administrative posts under Government should be thrown open to competition. But for admission to these examinations a prescribed university qualification should be made essential.

GHOSH, Rai Bahadur NISI KANTA.

(*a*) and (*b*) Certainly advantageous.

(*c*) No.

Yes; I consider it a good practice to adopt a special examination for different kinds of administrative posts under Government.

But the examination should, in all cases, be competitive.

GILCHRIST, R. N.

I cannot speak with any authority on the goodness or badness of the present system of university examinations being the test for Government service from the point of view of the public services, but I certainly consider that the present system is the reverse of advantageous to the students, and positively disastrous to the pro-

GILCHRIST, R. N.—*contd.*—GOSWAMI, BHAGABAT KUMAR, Sastri—GOSWAMI, Rai Sahib BIDHUBHUSAN—GOSWAMY, HARIDAS—GRAY, Dr. J. HENRY—GUHA, JATINDRA CHANDRA—GUHA, JITES CHANDRA.

gress and advancement of learning. I have treated this question in other answers and in my *Calcutta Review* articles, and need not re-enlarge on it here.

I advocate most strongly the creation of separate tests the organisation of which will be distinct from the University. A civil service commission should be organised without delay to manage all matters connected with Government appointments.

GOSWAMI, BHAGABAT KUMAR, Sastri.

Properly constituted examination tests must be the sole tests. Such examination tests will necessarily include special tests as explained before in my answer to question 9.

GOSWAMI, Rai Sahib BIDHUBHUSAN.

University examinations should be regarded as the qualification for posts under Government. For posts under Government requiring a special knowledge of some technical branches of study a special test, in addition to university qualifications, may be insisted upon. If ever university education came to be regarded as unnecessary for posts under Government it would be an irreparable evil to the public services, to the students, and to the spread of learning.

GOSWAMY, HARIDAS.

No; not advantageous.

Yes; Government should prescribe the minimum academic (educational) qualifications required for different kinds of administrative posts, and the final selection should be made from among the eligible candidates by special public tests suited to each department.

GRAY, Dr. J. HENRY.

It is disadvantageous

(*a*) to the students,
(*b*) to the public services, and
(*c*) to the progress and advancement of learning,

to have university examinations regarded as qualifications for posts under Government.

I would advocate separation, Government making its own selection and examination by its own tests.

GUHA, JATINDRA CHANDRA.

There ought to be special tests, or competitive examinations, for the selection of officers for the various higher departments of Government service, excepting the education service. In regard to this latter university degrees would be the best criterion of competence, though it may be desirable that those selected for it should undergo a special course of training before they took up the duties of their posts.

GUHA, JITES CHANDRA.

I would suggest the introduction of special tests for administrative posts, *e.g.*, deputy magistrateships, deputy superintendentships of police, excise superintendentships, postal superintendentships, etc. Candidates competing for these posts must be required to pass the B.A. degree examination of the University before they are allowed to go through special tests. The system of nomination ought to be abolished.

GUHA, RAJANIKANTA—GUPTA, BIPIN BEHARI—GUPTA, UMES CHANDRA—HALDAR, Dr. HIRALAL—HALDAR, UMES CHANDRA.

GUHA, RAJANIKANTA.

The higher university examinations should be regarded as the qualification for posts under Government. I hold this to be advantageous to

(*a*) the public services, and

(*b*) to the students.

At the same time, for many of the branches of the public service competitive examinations should be held, special tests being instituted for different kinds of posts under Government. These tests might be either identical with the competitive examinations, or they might be something over and above these examinations.

(*c*) This would not be detrimental to the progress and advancement of learning. We have the high authority of Lord Haldane in support of this view. I quote the following from the *Modern Review* for March, 1914:—

> "Lord Haldane in his address on the 'Conduct of Life' at the Edinburgh University (November, 1913) spoke in particular of the mental and moral sorrows of an undergraduate who has to make his choice of occupation in life and rule himself in preparation for it. His university career is the training for a wider permanent career, and the moment a boy fresh from school enters a university he becomes conscious of this fact in a sense never before experienced. . . . The very degree that he has now begun to work for will be one of the coins with which he will purchase a position in life. His degree—so he thinks, and *it is well that he should think so*—will be a certificate of accomplishment which he will be able to wave like a banner in the struggle for life."—*Modern Review*, February, 1914 (pages 241 and 242).

GUPTA, BIPIN BEHARI.

I have already indicated that university examinations should not be regarded as the qualification for posts under Government. Competitive examinations may be held for admission to the public services, but the University should have nothing to do with them. The training received at the University should, as far as possible, be an end in itself; otherwise; the present vicious system would be perpetuated.

GUPTA, UMES CHANDRA.

(*a*), (*b*) and (*c*). My answer is in the affirmative and, as to the other part, I am unable to give any reply as I am not acquainted with the practice in other countries.

HALDAR, Dr. HIRALAL.

University examinations should *not* be regarded as the qualification for posts under Government. I am certainly of opinion that special tests for different kinds of administrative posts under Government should be instituted as in many other countries. All appointments under Government should be thrown open to competition.

HALDAR, UMES CHANDRA.

(*a*), (*b*) and (*c*) University examinations are advantageous to all the cases mentioned, although they should not be regarded as the only qualification for posts under Government; there should be special tests for the different posts under Government.

HAQ, Khan Sahib Maulvi Kazi ZAHIRAL.—HARLEY, A. H.—HAZRA, JOGENDRA NATH—HOLLAND, Rev. W. E. S.—HOLMES, Rev. W. H. G.

HAQ, Khan Sahib Maulvi Kazi ZAHIRAL.

I do not hold it to be advantageous either

(*a*) to the public services,

(*b*) to the students,

(*c*) or to the progress and advancement of learning,

that university examinations should be regarded as the qualification for posts under Government. There ought to be separate tests for separate careers. But the competitive system of examination for filling up posts is not at all suited to the conditions prevailing in Bengal.

HARLEY, A. H.

The present system of allotting posts to university graduates by patronage is not so satisfactory as the system of special tests.

(*a*) The present system, it is true, has obtained for the public services some men who have rendered eminent service, but whose academical qualifications were not of the highest order, and this has been specially true of Muhammadans who, as a community, could not enter into open competition with Hindus. Open competition, however, would lead to the filling up of posts as before by candidates from the most advanced districts educationally. Most acceptable to the Muhammadan community generally would be restricted competition and the reservation, as at present, of a number of posts for Muhammadans and recognition of the principle of territorial representation.

HAZRA, JOGENDRA NATH.

It is better to have special tests for different kinds of administrative posts under Government if all, or a majority of, the posts in each case can be thrown open to competitive examination.

HOLLAND, Rev. W. E. S.

See my reply to question 1. I hold the present prostitution of university teaching to serve as a qualification for Government posts to be destructive of the very soul of learning.

I attach the greatest possible importance to the entire and complete separation of university education and Government service; and would most strongly advocate the introduction of departmental tests for entrance upon the several services of the State. Without this change improvements in other directions will only touch the surface of things.

If Government service is entered through outside and independent examinations the aim of our students, on its more mercenary side, will not be to pass university examinations or obtain degrees, but to train and develop their mental capacity and so fit themselves by education of the best sort available for the tests they will later have to undergo. These tests will, presumably, be preceded by a short period of special cramming.

HOLMES, Rev. W. H. G.

I have already given it as my belief that the deterioration of the University as a place of real education has been due to the enormous influx of students drawn by the

hope of Government appointments. It is not possible for an outsider to say whether this has been advantageous to Government or no, but it has been most detrimental to students and to the advancement of learning. It has become highly necessary that Government should institute its own tests in selecting for administrative posts.

HOSSAIN, WAHED.

I think that some of the university examinations should be regarded as the qualification for posts under Government from the points of view indicated in this question, *e.g.*, service under the Education Department, judicial service, etc. But, at the same time, I hold that special tests for different kinds of administrative posts under Government should be instituted as is the case in many other countries. Instances are not wanting to show that graduates who have taken the highest degree in chemistry or mathematics have been appointed deputy superintendents of police or excise. Their degrees, or examinations conferring such degrees, are not tests of ability for administrative work. Dissatisfaction has often been expressed as to the business capacity, and strictures passed on the ability of young graduates selected for administrative posts without any special test. The complaint on this score is not without valid grounds. In these circumstances, I think that it will be advantageous to the public services, as well as to the students, to institute special tests for different kinds of administrative posts under Government.

HUNTER, MARK.

I do not think that any university examination should directly qualify for posts under Government in the sense that only those who have passed the examination should be eligible for such posts. On the other hand, where what is wanted is a general educational qualification, or such special qualification as marked success in a particular university examination is guarantee of, there seems little reason for Government—or any other employer—to ignore university examinations. Should Government institute its own examinations for admission to administrative posts, even if candidature be not limited—as it not improbably might be—to persons nominted largely with reference to academic qualifications—it seems likely that a university education would be sought by many in the belief that it would afford a good preparation for the Government examination; and, if civil service examinations for appointment to Government posts should be instituted on a wide basis, there is more than a danger that pressure would be brought to bear on universities to adapt their courses to such examinations. For colleges to be converted into cramming-shops would plainly not be advantageous to the public services, to the students, or to the progress or advancement of learning; but it is no unworthy ambition in a university student to desire to serve Government and, so long as Government seeks to recruit its services from those who have the best intellectual equipment, it is not easy to see how success in a university examination can cease to be, either directly or indirectly, a qualification.

HUQ, The Hon'ble Maulvi A. K. FUZLUL.

(*a*), (*b*) and (*c*) My answer is in the negative; that is, I do not think the present system to be advantageous.

Yes; I would advocate the introduction of special tests for different kinds of administrative posts under Government. I doubt, however, whether a change such as is advocated in this recommendation can be introduced at once and I am, therefore, inclined to think that, in case such changes are introduced at all, a beginning may be made by selecting certain departments of public service by way of experiment.

HUSAIN, The Hon'ble Mian MUHAMMAD FAZLI, Khan Bahadur—HYDARI, M. A. N.—IBRAHIM, Khan Bahadur MUHAMMAD—IMAM, The Hon'ble Justice Sir ALI—Indian Association, Calcutta.

HUSAIN, The Hon'ble MIAN MUHAMMAD FAZLI, KHAN Bahadur.

(*a*), (*b*) and (*c*) It is advantageous to all the three.

Over and above the university qualification a special test may also be instituted for special services.

HYDARI, M. A. N.

I think it is advantageous to all concerned that university examinations should be regarded as among the necessary qualifications for posts under Government The special tests should come after admission to service on the strength of the University test.

IBRAHIM, Khan Bahadur MUHAMMAD.

University examinations should be regarded as the qualification for posts under Government provided these examinations are real tests of proficiency. The institution of special tests for different kinds of administrative posts under Government is advantageous and necessary.

IMAM, The Hon'ble Justice Sir ALI.

(*a*), (*b*) and (*c*) My opinion is in the affirmative under all the three heads.

University education should be regarded as a qualification, and is beneficial to the public services, to the student class, and to the progress and advancement of Western learning in India. But this does not preclude the necessity of instituting special tests of various kinds for administrative posts under Government. The co-relating of university degrees and special tests is a question of details. The University should give its alumni a broad general outlook and a certain amount of culture, but special tests would yet be necessary for administrative posts. I illustrate my answer by taking the judicial service. The University should give us highly educated men with knowledge of the laws, but for an administrative post in the judicial line these alone are not sufficient. One would recruit from among these law graduates such men as have shown special proficiency in the application of the judicial principles in the ordinary practice of their profession. In the higher judicial appointments, besides all this, a certain probity of character and soundness of judgment would be necessary. For the lower judiciary a somewhat lower test would be enough. While, for the higher ones, the most brilliant ornaments of the Bar would have to be recruited from. A similar method would apply to other departments.

Indian Association, Calcutta.

For administrative posts under Government there should be special examinations, except for posts in the ministerial ranks.

This involves a special preparation by candidates, who, if they had a university training, would find it very useful. This happens in the service examinations in the United Kingdom.

Even if these candidates are unsuccessful in the services examinations they will find their university education helpful in life.

IRFAN, Maulvi MOHAMMAD—IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI—JALIL, ABDUL—JENNINGS, The Hon'ble Mr. J. G.

IRFAN, Maulvi MOHAMMAD.

(*a*), (*b*) and (*c*) The reverse.

University qualifications should not be regarded as the only tests for posts under Government. Much importance should be attached to character.

IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI.

The deterioration of Indian universities is traceable, to a large extent, to their endeavour to accommodate themselves to the needs of the public service. They should be pure centres of learning without reference to the qualifications that may be necessary for turning out efficient public servants. It must be left to Government to institute their own examinations for testing candidates who aspire to enter their service. By this I do not mean to suggest that the University should altogether exclude useful subjects. But my point is that they should not be taught in a narrow utilitarian spirit. The culture value of a particular subject arises not so much out of the matter which is treated, as out of the manner in which it is handled.

JALIL, ABDUL.

Yes; I hold it to be advantageous

(*a*) to the public services,

(*b*) to the students,

(*c*) to the progress and advancement of learning,

that university examinations be regarded as the qualification for posts under Government. The practice of instituting special tests for different kinds of administrative posts under Government may be tried to suit the special conditions prevailing in India for filling up 25 per cent of the posts under Government.

JENNINGS, The Hon'ble Mr. J. G.

Whilst the adoption of the University examinations to suit the standard for admission to posts under Government has decided disadvantages and undoubtedly brings to the examinations large numbers of students who do not work in the university spirit, it may, on the other hand be said that the advent of these candidates for employment is not without its compensations. For one thing these candidates are largely to be found in the junior examinations where their fees are a considerable source of profit to the University. Again, if it be presumed that their materialistic views are apt to affect the spirit of others undesirably it may, perhaps, be urged that they themselves are thus brought under better influences. Further, from a point of view other than that of the University, it may be maintained that the appointment of Government servants purely by means of competitive examination is in itself an evil, and that the selection of candidates for employment, after they have passed a qualifying examination, on the recommendation of responsible persons who know their character and real attainments, is likely to secure better public servants. So far as the tone of the University and its examinations are concerned the bread-and-butter matriculation candidate is not likely to do much harm. His tone is likely to be largely that of his teachers—good bad, or indifferent. So far as the higher examinations are concerned I should say that Government are likely often to obtain better servants by careful selection among successful university candidates than by a separate examination. Moreover, of examinations there is already no end, and the prospect of parallel lists of Government and university tests, with the cleverest youths striving and claiming the right to enter for both, is not attractive. At Oxford and Cambridge the existence of the civil service examination deters few, apparently, from attempting to

take degrees, and a proposal to prevent any one from appearing both in the University examinations and in the civil service examination would probably meet with little success. On the other hand, I am entirely in favour of the differentiation of the matriculation and school-leaving certificate courses and consider that, without disqualifying matriculates, Government may reasonably prefer those who have passed an examination in subjects which are likely to be practically useful in subordinate posts in their employment.

JONES, T. CUTHBERTSON.

I think it is distinctly not to the advantage of the public service, of the students, or of learning that university examinations should be regarded as the qualification for posts under Government.

In the absence of sufficient openings in trade or commerce Indian students flock into our universities eager to qualify for subordinate posts under Government, or for the law, or, failing these, are prepared to fall back upon a clerkship. True, we have courses in pure science, but, in the absence of technical courses (*vide* question 7), they lead nowhere, and the strange spectacle is witnessed of graduates in science taking up the study of law in order to swell the ranks of the legal profession. Armed with diplomas hungry applicants present themselves in shoals for selection to Government appointments. A student who has reached about the highest qualification his university can bestow is often glad to accept a naib-tahsildarship in which he will earn R60 for perhaps five years before reaching the El Dorado of a tahsildarship where he may hope to earn ultimately R300 or R400 per mensem. If our university diplomas are worth anything at all they deserve higher rewards than these. Our colleges are at present crowded with a miscellaneous collection of students drawn from many different classes, in many cases animated by little desire for learning, and unfitted by previous training to appreciate college lectures, but driven by poverty to take up any course which opens to them the prospect of securing a decent post in life. The fact is that the inducements offered by Government in the first instance to induce students to attend our universities have been persevered with after the need for them has ceased to exist.

Let Government institute its own tests for admission to the different kinds of administrative posts in its service, and let the tests be proportioned to the task. Students will then cease to heap up degrees in order to qualify for subordinate positions under Government. For admission to the subordinate ranks of Government service a simple syllabus should be drawn up, not going beyond what is taught in the high schools. Competition will ensure that a high standard of efficiency within the limits laid down will be reached.

As the higher branches in the administrative services are opened to Indians they will still attend colleges, and in large numbers, to qualify for them. But the colleges will supply the general education; Government will enforce the particular test. There will then be some hope, as technical schools multiply, that students will enter our colleges with the ambition, it is true, of entering one of the recognised professions, or the higher ranks of trade and commerce, but also with some prospect of acquiring what it is the duty of every university to impart—a cultivated mind.

KADIR, A. F. M. ABDUL.

Special tests should be instituted for different kinds of administrative posts under Government. The holding of a university degree can qualify a person for an incumbent in the Education Department or, to some extent, in the judicial line. The evils of the present system of selection for the executive branch of the civil service are too well known to be dealt with here. The progress of the middle class of the people has been

greatly hampered, while it has led to suspicion in the minds of the public against Government. The institution of special tests will be advantageous to both the people and Government.

KAR, SITES CHANDRA.

The treating of university examinations as qualifications for posts under Government is of little disadvantage to the public services. On the other hand, the disadvantage alike to the students and the progress of learning appears obvious. With students examination becomes the chief object, and learning suffers in consequence. The institution of special tests for different kinds of such posts would thus be desirable. This remark, however, would not apply to cases where technical training is desired. I mean, for example, that a university-trained engineer might be taken directly into the public services without detriment to any concerned.

KARIM, Maulvi ABDUL.

It is most undesirable that university examinations should be regarded as qualifications for posts under Government. Neither the public services, nor the students, nor the progress and advancement of learning can derive any advantage from such an arrangement. The different university examinations are tests of the different standards of knowledge in general subjects, and not of the special knowledge and training required for the different branches of the public services. There is no branch of the service for which academic attainments are more necessary than for the educational service. Yet, even in this service, many officers, although they possess these attainments, fail to prove a success for want of training in, and knowledge of the art of, teaching and the work of inspection. If a good scholar cannot always be even a good teacher, or a good educational inspector, it is much less likely that he would prove an efficient member of any other branch of the service for which special training in, and knowledge of, departmental work is much more necessary.

To regard success at the university examination as a qualification for the public services would be disadvantageous to students because, in that case, they would be actuated more by mercenary motives than by love of learning, and they would labour not for the acquisition of knowledge, but for somehow passing the University test with a view to enter service. This is the principal reason why Indian universities, as a rule, fail to produce such scholars as make substantial contributions to learning, and this is how the progress and advancement of learning suffers on account of the acceptance of university examinations as qualifications for posts under Government. Perhaps it would not be altogether an exaggeration to say that Indian universities do not, as a rule, produce sound scholars (there are, of course, honourable exceptions), but rather manufacture money-making machines.

Special competitive examinations for testing fitness for the different branches of the service should be instituted. In order to safeguard the interests of backward communities a certain number of posts should be reserved for them, and these should be thrown open for competition by members of that community only, some standard of proficiency in general knowledge being insisted upon.

KARVE, D. K.

The University examinations, including the matriculation examination, should be recognised as qualifications for Government service. In this country, as yet, no class of people has arisen which will take to university education for its own sake. To have separate tests for Government service would be simply multiplication of examinations.

KERR, The Hon'ble Mr. J. H.

I attach two statements for the principal services under the Government of Bengal. Statement I shows the services in which possession of a degree is prescribed in the case of candidates for direct appointment, but, even in these services, a certain number of posts are filled by the promotion of men in the lower services who may, or may not, possess a degree. Statement II shows the services for which a lower educational qualification is required of candidates for direct appointment and the number of graduates who have been appointed to these services during the last five years.

Besides the appointments shown in the statements there are a host of petty posts in the districts to which appointments are made by local officers without reference to Government. The initial pay of these posts is ordinarily Rs. 20 or Rs. 25 and the maximum to which a man can rise is Rs. 100 or Rs. 120. Graduates are very rarely appointed to those posts, so I have not thought it necessary to obtain detailed statistics relating to them :—

(*i*) STATEMENT I.

Services for which possession of a university degree is ordinarily required as a condition of recruitment.

Name of service.	Pay.	Strength of cadre.	Total No. of appointments made during the last five years.	No. of appointments in column 4 to which graduates were appointed.	REMARKS.
1	2	3	4	5	6
	Rs.				
Provincial Civil Service (Executive branch).	250—800	292	59	53	Officers promoted from a lower service need not possess a degree.
Subordinate Civil Service	100—250	221	90	75	
Settlement Kanungo	100—200	244	74	38	Graduate qualification prescribed in 1914.
Provincial Educational Service	200—700	161	52	64	For certain special posts in madrassahs: candidates with madrassah qualifications are appointed and, occasionally, officers possessing lower qualifications are promoted from the subordinate or lower educational services.
Subordinate Educational Service	50—250	810	140	106	
Chemical Examiner's Establishment.					
Laboratory Assistants	50—200	5	1	1	
Excise Department.					
Superintendents of Excise and Salt.	250—700	28	28	13	Partly recruited by promotion of inspectors in whose case a degree was not till recently essential.
Inspectors of Excise and Salt	100—250	54	42	25	Partly recruited by promotion of sub-inspectors in whose case a degree is not essential.

KERR, The Hon'ble Mr. J. H.—*contd.*

(*i*) STATEMENT I—*contd.*

Services for which possession of a university degree is ordinarily required as a condition of recruitment—contd.

Name of service.	Pay.	Strength of cadre.	Total No. of appointments made during the last five years.	No. of appointments in column 4 to which graduates were appointed.	REMARKS.
1	2	3	4	5	6
	Rs.				
Medical Service.					
Civil Assistant Surgeons	100—600	132	10	5 Graduates of Medicine, 3 Licentiates of Medicine.	The standard is the L.M.S., but sub-assistant surgeons not possessing this qualification are occasionally promoted to the rank of assistant surgeon.
Police Service.					
Provincial Police Service	250—500	14	9	9	The figures relate to direct recruitment only. A certain number of appointments are reserved for promoted inspectors.

(*ii*) STATEMENT II.

Services for which a lower minimum educational qualification is prescribed.

Name of service.	Pay.	Strength of cadre.	Total No. of appointments made during the last five years.	No. of appointments in column 4 to which graduates were appointed.	REMARKS.
1	2	3	4	5	6
	Rs.				
Provincial Forest Service	250—850	9	5	4	
Subordinate Forest Service—Rangers	50—150	35	8	0	
Provincial Agricultural Service.	200—400	6	4	2	
Subordinate Agricultural Service.	50—200	13	4	0	

KERR, The Hon'ble Mr. J. H.—*contd.*

(*ii*) STATEMENT H—*contd.*

Services for which a lower minimum educational qualification is prescribed—contd.

Name of service.	Pay.	Strength of cadre.	Total No. of appointments made during the last five years.	No. of appointments in column 4 to which graduates were appointed.	REMARKS.
1	2	3	4	5	6
	Rs.				
Subordinate Veterinary Service	30—175	92	46	0	
Inspectors of Co-operative Societies.	100—200	No fixed	11	2	
Superintendents, Fisheries Department.	250—400	2	1	1	
Sub-Registrars	50—250	255	110	35	
Income-tax Assessor . .	75—250	27	12	2	
Appraisers, Customs Department.	200—750	26	6	2	
Preventive Officers, Customs Department.	100—550	214	61	0	
Sub-Inspectors of Excise and Salt.	50—100	252	113	7	
Bengal Jail Department . .	50—355	88	18	0	
Judicial Branch of the Provincial Civil Service.	200—1,000	293	65	All were graduates.	The minimum qualification is the pleadership examination but, in practice, only graduates-in-law are now nominated by the High Court.
Sub-Inspectors in the Bengal Police.	50—100	1,705	630*	79	*This does not include appointments filled by the promotion of head constables.
Sub-Inspectors in the Calcutta Police.	125—175	119	89	22	Since 1916 graduates have ordinarily been selected. Higher appointments in the Calcutta Police are filled by promotion.

KERR, The Hon'ble Mr. J. H.—*contd.*

(*iii*) RULES FOR THE REGULATION OF APPOINTMENTS IN THE CLERICAL SERVICE OF THE SECRETARIAT OF THE GOVERNMENT OF BENGAL.

1. The clerical service of the secretariat of the Government of Bengal is divided into two divisions—the upper division and the lower division.

Upper Division.

2. The upper division of each department is divided into six grades, thus :—

	Rs.
I grade	400
II „	300
III „	250
IV „	200
V „	150
VI „	125

There are local allowances of Rs100 attached to certain of the posts of head assistants.

3. Vacancies which occur in the upper division of each department will be filled in succession by the following methods :—

(*a*) Selection of suitable candidates from the yearly nominations made by commissioners of divisions and others for the provincial executive service, the police service, or the subordinate civil service, and from among other candidates for these services whom the chief secretary has marked "as deserving of consideration for a secretariat appointment". The indispensable qualification for an appointment in the upper division under this rule will be that the candidate must have passed the B.A. examination, or its equivalent, and preference will be given to those who passed with honours.

(*b*) Selection of suitable Europeans or Anglo-Indians. The educational attainments required of such candidates will be the intermediate examination, the high school pass examination, the senior Cambridge local examination, the Cambridge senior school-certificate examination, or a certificate that the candidate has passed the final examination of the advanced commercial classes. In this case, preference will be given to graduates.

(*c*) Promotion from the lower division.

No clerk in the lower division, however, has, as a matter of right, any claim to promotion in the upper division, which will be given strictly according to merit.

4. On the 1st May of each year each department shall send a memorandum to the Financial Department showing the number of permanent vacancies expected in the upper division during the ensuing twelve months, and shall state by which of the methods referred to in rule 3 (*a*), (*b*), and (*c*), respectively, these are to be filled. In the case of selection under rule 3 (*a*) the department concerned shall also state whether it is the turn of a Muhammadan to get the appointment or not (*vide* rule 21).

5. Upon receipt of the estimates the Financial Department shall decide the total number of officers who may suitably be appointed to the upper division, bearing in mind the number of vacancies likely to occur during the year, and the number of probationers already waiting to be confirmed.

6. The selection of candidates to be nominated under rule 3 (*a*) shall be made by the secretaries at a meeting.

7. For the purpose of the selection of candidates under rule 3 (*b*) the Director of Public Instruction shall be asked to submit, in consultation with the authorities of European colleges and schools, the names of two or three candidates, for each vacancy, who possess the qualifications prescribed. From among these a selection will be made by the secretaries at a meeting.

8. Vacancies to be filled under rule 3 (*c*) by promotion from the lower to the upper division shall be dealt with by each department concerned without reference to the

KERR, The Hon'ble Mr. J. H.—*contd.*

Financial Department, provided that the permissible number of such promotions, as settled under rule 4, is not exceeded.

9. Candidates selected under rules 3 (*a*) and 3 (*b*) will be on probation for one year, during which they will be given a subsistence allowance of Rs. 75 per month, which will be enhanced to Rs. 100 after one year's approved service. Candidates selected under rule 3 (*c*) will be on probation for one year, during which they may be given the full pay of the lowest grade, or any less allowance, which may appear to the department concerned to be suitable.

Lower Division.

10. Clerks in the lower division of the departments of the secretariat are graded as follows:—

	Rs.
I grade	100
II „	80
III „	70
IV „	60
V „	50
VI „	40

11. The vacancies which occur in the lower division of the departments of the secretariat will be filled up by means of a competitive examination. In special cases, as laid down in rules 20 and 21, appointments may be made by nomination.

12. On the 1st May of each year each department shall send a memorandum to the Financial Department showing the number of permanent vacancies which are expected in the lower divisions of the various offices during the ensuing year. This estimate shall take into account the number of vacancies likely to occur owing to promotions to the upper division. The department concerned will also state how many (if any) of the vacancies are to be given to Muhammadans under rule 21.

13. These estimates will be examined by the Financial Department which shall decide the number of vacancies available for competition. This will be notified in the *Calcutta Gazette* on or before the 31st May.

14. The examination will be held in the month of August of each year. The arrangements for the examination will be made by the Board of Examiners, Fort William, who will be assisted by paid examiners, and will act in communication with the Financial Secretary to the Government of Bengal.

15. Candidates will be required to produce evidence that they have been through a complete secondary school course. In the case of Europeans and Anglo-Indians applicants may be accepted who have obtained the elementary school certificate and have taken the supplementary commercial course prescribed by the European Schools Code. Every candidate must submit, before the 15th July, a written application for permission to appear at the examination.

16. The application under the last rule shall be in the form given in the margin, and must be accompanied by a treasury receipt for the sum of R10. This sum the candidate is required to pay into the treasury nearest his place of residence by way of examination fee. With the application must also be forwarded:—

To

The Secretary to the Government of Bengal,
Financial Department.

Sir,

I request permission to present myself at the ensuing examination of candidates for appointment in the clerical service of the secretariat to the Government of Bengal.

2. A treasury receipt for the fee of Rs. 10 is forwarded herewith.

I am, etc.,

(i) The candidate's evidence that he has been through a complete secondary school course and, in the case of a European or Anglo-Indian, that he has obtained the elementary school certificate and taken the supplementary commercial course prescribed by the European Schools Code.

KERR, The Hon'ble Mr. J. H.—*contd.*

(ii) Evidence that the candidate, at the date of making the application, is not less than 18, and not more than 24 years of age. The date of the candidate's birth must be stated.

(iii) In case the candidate has been educated at a school in which students' good conduct registers are kept, and in case a year has not elapsed since he left school, an extract from the register relating to the candidate for the last year of his attendance at school, certified by the headmaster, is required. In other cases, a certificate that the candidate is of good moral character is required from the head of the institution in which he has last been educated, or from some respectable householder to whom he is well known in private life, and who is himself known to a district or sub-divisional magistrate, or to the head of some Government office, this last fact being certified by the countersignature of the officer in question.

(iv) If the candidate is employed under Government a certificate by the head of the office or department to the effect that, in his opinion, there is no objection to the candidate appearing at the ensuing clerkship examination.

(v) A statement whether the candidate has appeared at any previous clerkship examination and, if so, in what year.

17. There will be a preliminary test in dictation and handwriting and a *viva voce* examination in English and general knowledge which the candidate must satisfy. The examination in these subjects will not be competitive, but marks will be assigned for the purpose of testing efficiency. Papers of candidates will be examined as soon as possible after the examination, and the examiners will require any candidate who fails to obtain two-thirds of the marks in each subject, or to pass the *viva voce* examination, to withdraw from further examination. The remaining subjects will be :—

	Marks.
(1) English—including commercial correspondence, letter drafting, and *précis* writing (two papers). The syllabus will be that of the Government commercial classes and the marking will be stringent	100
(2) Mathematics—including arithmetic (the whole), algebra, and geometry	100
(3) Geography and history	100
Optional subject—Shorthand [(Pitman's), speed test, 100 words]	75
Typewriting (speed test, 35 words)	75

No candidate will be credited with marks in any subject in which he fails to get one-fourth of the full marks.

18. As soon as practicable after the examination the Board of Examiners will report the result to the Financial Secretary to the Government of Bengal. The report will contain the names of all the candidates, in order of merit and, subject to their being adjudged fit on the results of the examination, the exact dates of their births, and the number of marks obtained by each candidate in each subject. The candidates will then be offered, in order of merit, their choice of the various vacancies, and they will be appointed accordingly, subject to any arrangement which the Financial Department may find necessary, in consultation with the department concerned, with special reference to rule 21. Any vacancy occurring after the examination, and before the first day of the following April, will be offered, through the Financial Department, to the remaining candidates in the list in the same way. Vacancies occurring after the 1st April in any year will be reserved for competition at the examination in the ensuing August.

19. Each selected candidate will be placed on probation for 12 months. His allowance during this period will be Rs. 35 per month.

General.

20. The head of an office will retain the power of appointing men of special ability or aptitude to any post in the office when such a post cannot be filled in the ordinary way.

21. (1) The head of an office will also reserve the power of appointing suitable Muhammadans to either the upper division or the lower division. In the case of the upper division of the secretariat every third appointment in each office made under rule 3 shall

KERR. The Hon'ble Mr. J. H.—*contd.*

ordinarily be given to a Muhammadan provided he possesses the educational qualifications required by rule 3 (*a*). In the lower division of the departments of the secretariat every third appointment in each office shall ordinarily be given to a Muhammadan who possesses the educational qualifications required by rule 15 and furnishes the evidence required by rule 16. Before candidates are selected for appointments in either division all vacancies shall be advertised in Muhammadan papers and Muhammadan Anjumans shall be informed. In the lower division such selection shall be made only when there is no suitable Muhammadan candidate in the competitive examination to whom the post can be offered.

(2) Until the proportion of Muhammadans in the various offices reaches one-third the claims of qualified Muhammadan candidates shall be considered in filling up all vacancies.

21-A. Heads of offices shall submit a return in the following form to the Appointment Department not later than the 1st July of each year, the figures supplied being those for the preceding official year:—

Office.	1ST APRIL.				31ST MARCH.								
	Total permanent sanctioned strength.	Total number of Muhammadans holding permanent appointments	Number of appointments which should be held by Muhammadans if it were possible to follow the proportion fixed by Government.	Percentage of figures in column 3 to those in column 2.	Total permanent sanctioned strength.	Total number of Muhammadans holding permanent posts.	Number of appointments which should be held by Muhammadans, if it were possible to follow the proportion fixed by Government.	Percentage of figures in column 7 to those in column 6.	Number of permanent vacancies during the year.	Number of permanent vacancies filled by Muhammadans.	Number of temporary clerks employed during the year.	Number of Muhammadans employed as temporary clerks during the year.	Special reasons, if any, for failure to comply with the instructions contained in rule 21 of the clerkship examination rules.
1	2	3	4	5	6	7	8	9	10	11	12	13	14

22. If, at any time during the period of probation, or at its close, the probationer's work is not considered satisfactory by the head of the office in which he is employed he may be discharged, and will have no claim to either gratuity or compensation. If, however, he was admitted from another office he may be reverted to his former appointment or if this is not practicable, transferred to another appointment on the same pay. To provide for such cases arrangements should be made by which promotion in the place of the transferred clerks should be sub. *pro tem.* until the latter have been confirmed.

23. Every probationer, before appointment, will be required to produce a statement showing to whom he is related or connected in the office in which he desires to serve. He must state the precise relationship or connection and certify that his statement, so far as

KERR, The Hon'ble Mr. J. H.—*contd.*—KHAN, ABUL HASHEM—KHAN, MOHOMED HABIBUR RAHMAN.

he knows, is correct and complete. If any wilful inaccuracy is subsequently detected in this declaration the person making it will be liable to be discharged from Government service.

24. Promotion is regulated by seniority and merit, but in the higher grades in each division more importance will be attached to merit.

25. Every appointment is made subject to the production of a medical certificate from the Presidency Surgeon, who is entrusted with the duty of examining candidates for appointment in the particular office to which the probationer has been appointed.

26. Rules 11 to 18 and rules 21 and 21-A will apply *mutatis mutandis* to the following offices:—

Board of Revenue, Bengal; Inspector-General of Prisons; Inspector-General of Police; Director of Public Instruction; Director of Land Records; Director of Agriculture; Inspector-General of Registration; Surgeon-General with the Government of Bengal; Superintendent of Emigration and Protector of Emigrants; Collector of Customs, Calcutta; Collector of Income-tax, Calcutta; Commissioner of Excise and Salt; and Sanitary Commissioner.

27. Copies of these rules may be obtained on application at the office of the Financial Secretary to the Government of Bengal.

J. DONALD,
Secretary to the Government of Bengal,
Financial Dept. (Misc.).

CALCUTTA,
The 25th June, 1917.

Statement showing the number of candidates who appeared at the clerkship examination in 1916 and 1917, who failed at the preliminary test, and who obtained appointments.

Year.	No. of candidates who appeared.			No. who failed at the preliminary test.			No. who obtained appointments.			Remarks.
	No. of graduates.	No. of under graduates.	Total.	No. of graduates.	No. of under graduates.	Total.	No. of graduates.	No. of under graduates.	Total.	
1916 . .	4	1	5	*Nil*	1	1	4	*Nil*	4	
1917 . .	5	12	17	*Nil*	5	5	1	2	3	

KHAN, ABUL HASHEM.

(*a*), (*b*) and (*c*) It will be advantageous that the passing of university examinations should be considered as one of the necessary qualifications for posts under Government. For different grades of administrative posts different grades of university qualifications might be prescribed as a minimum. An additional test of a special kind may, however, be instituted for posts requiring special qualifications or aptitude.

KHAN, MOHOMED HABIBUR RAHMAN.

Some minimum academic qualification should certainly be made essential for those who wish to apply for Government service. Later on special tests should certainly be instituted for different kinds of administrative posts under Government.

Ko, Taw Sein—Lahiri, Becharam—Lahiry, Ranojit Chandra—Latif, Syed Abdul, Khan Bahadur—Lucas, Rev. E. D.—Mackenzie, A. H.

Ko, Taw Sein.

It is certainly adverse to the progress and advancement of learning that university examinations should be regarded as the qualification for posts under Government. It would be better to institute special tests for different kinds of administrative posts under Government. The academic value of an examination should be separated from its commercial value. Under the present system, both the public services and students suffer. The Government of India have inherited this policy of commercialism from the East India Company. The time, energy, and substance of students are wasted, and Government do not, as a rule, secure a desirable class of recruits which possesses a combination of initiative, high character, and physical vigour.

Lahiri, Becharam.

Competitive test. If any post be reserved for any community that must be thrown open to all the members of the same community. Nomination is always deprecated. No preference to any class ought to be given.

Lahiry, Ranojit Chandra.

University education should mainly be given for the culture of the body and mind. It must, to some extent, have the necessary consequence of being a qualification for Government posts and other means of livelihood. There are some public services for which no other test is necessary. The special tests suggested in the question should be adopted, not in the spirit of distrust or want of faith in university education, but merely as supplementary thereto. In this way the apparent conflict between the two functions of education as a pure culture and as a means of livelihood may be removed.

Latif, Syed Abdul, Khan Bahadur.

I think university degrees should continue to be regarded as qualifications for posts under Government. This is advantageous to all concerned. The public services get the best intellects. Students also can, from the very beginning, aim at a particular service. The competitive native civil service examination held in Bengal forty years ago was found to be a failure and abandoned. I do not think the existing system of recruitment for the different branches of the public services is faulty.

Lucas, Rev. E. D.

I think that a special civil service test ought to be introduced as soon as possible. It is not to the best interests of a college to make it a stepping-stone into a Government post. It has been necessary, so far, to adopt this method.

Mackenzie, A. H.

(a) I think it is advantageous to the public services that a university degree should be regarded as a qualification for the higher posts under Government. A degree connotes, we may suppose, that the holder has received a liberal education and, therefore, possesses certain qualities which could not be gauged by a competitive test.

I think, however, that it is not to the advantage of the public services that success in the intermediate examination should be so regarded. The intermediate ex-

MACKENZIE, A. H.—*contd.*

amination does not mark the completion of a definite stage in education, nor do the courses in preparation for it afford a suitable training for the posts under Government to which undergraduates can aspire. For these posts special training in a commercial, technical, or lower-grade training college would be a much more suitable preparation than two years at a university.

Nor is it to the advantage of the public services that the matriculation examination should be regarded as a qualification for Government posts. A matriculation certificate connotes that the possessor has acquired certain knowledge, but it does not, under present conditions, guarantee that he has received a methodical education; the matriculate may have 'studied privately' or may have been crammed at a school which is not under inspection; there is nothing to show that his mind has been trained or his character developed.

(*b*) The matriculation examination should be a test of a student's fitness to proceed to the University, the intermediate examination of his progress during his university course. A student who studies for either of these examinations not with the purpose of advancing his education, but with the sole aim of qualifying for a post, takes up a wrong attitude of mind towards his work; he regards the examination as an end in itself and confines himself to those aspects of his work which will pay best in it. It is, therefore, not advantageous to the student that either the matriculation or the intermediate examination should be regarded as a qualification for Government service.

(*c*) It cannot be advantageous to the progress and advancement of learning to force students to acquire knowledge not for its own sake, nor for purposes of education, but simply in order that they may pass examinations.

I would have three grades of *qualification* for Government service (in which a knowledge of English is required), each certifying the completion of systematic education up to a certain point—the school leaving certificate, the diplomas of lower-grade colleges (commercial, technical, and junior training), and university degrees. Government posts should be divided into three categories according as to whether the minimum educational qualification required is that of school, lower-grade college, or university. Appointments should be made *from amongst qualified candidates* either by personal selection, or by selection and competition according to the nature of the post.

The practice in England and many other countries of selecting candidates for Government service solely by means of a test of study, without regard to the education with which it has been linked, is open to criticism. Thus, Mr. Stanley Leathes, who writes on this subject with the authority of the expert, says in his book, *What is Education?* (page 158):—

> "I hope that some day, for the several competitions of the civil service, we may be able to require (according to circumstances) a first leaving certificate, a second leaving certificate, or an university degree as a condition of entry. Then we should have a guarantee of suitable education, and the results of the competitions would be much more trustworthy."

Government service is the goal of most Indian boys. The reason is partly the *izzat* conferred by employment under Government, but chiefly the absence of other careers. The average English boy who has received a secondary education does not look to Government service as a career for he can, without much difficulty, find a more attractive career in business, engineering, the army, the navy, or the colonies. The last three are closed to Indian boys, and the openings in business and engineering are few compared with those in Western countries. *Open* competitive examinations would dominate our curricula; for it would be impossible for schools and colleges to resist the pressure which would be put upon them to adapt their syllabuses and methods of teaching to ensuring the success of their students in the examinations for entry to a profession which, under present economic conditions, offers a more certain means of livelihood than any other. Moreover, if tests for admission to Government service were, as in many other countries, merely tests of knowledge, and not of education, the inevitable result would be the rapid

growth of institutions of a new type—cramming establishments for candidates for Government service. These would probably obtain the chief 'places' in the open competitions, but they would also turn out thousands of youths uneducated, ill-disciplined, and unfit for any other career.

MAHALANOBIS, PRASANTA CHANDRA.

It is highly desirable that *special tests* should be instituted for recruitment to the public administrative services.

(*a*) It would be advantageous to the public services inasmuch as *direct tests* (with particular reference to the special qualifications necessary) would be substituted for vague academic qualifications.

(*b*) It would be better for students inasmuch as it would prevent a great amount of waste of energy in studying useless subjects. Of course, for the superior services, university studies themselves might be considered necessary but, in that case, such studies will not be useless.

(*c*) Such a separation is absolutely essential for true progress and advancement of learning. It is impossible to attain a scientific and detached frame of mind while administrative posts remain the ultimate end in view.

But, in the existing conditions, it is essential that the University should have a *major* control over such tests. A joint departmental committee would probably be the best body to undertake the conduct of these examinations.

MAHASAI, KUMAR KSHITINDRADEB RAI.

I do not hold that the University examinations should, in general, be regarded as the qualifying tests for posts under Government. I am for instituting special tests for different kinds of administrative posts as is done in like cases in the United Kingdom.

I venture to hope that such competitive examinations, if instituted for filling up vacancies as proposed above, will greatly conduce to the increase of happiness and contentment of the people in general.

MAHTAB, The Hon'ble Sir BIJAY CHAND.

(*a*) Yes; it is advantageous to the public services inasmuch as they are filled by such persons who have at least received some broad general education.

(*b*) As for students neither is universally true; it is, no doubt, good for students of mediocre merit and indigent circumstances, if they succeed in securing appointments, inasmuch as they have neither the merit, nor the means, to pursue knowledge for the sake of knowledge; but, if they fail in securing appointments, it is not good for them either inasmuch as it causes disappointment and breeds discontent. Having secured a university degree or diploma they generally consider themselves too high to take any profession which is not literary, and nothing seems to satisfy them except a desk and a chair under a punkah in the midsummer heat. If there is really any discontent in India it is to be found mostly in the unemployed young men of this class. For this reason, I am rather inclined to say that no attempt should be made to extend this kind of higher education unless Government can find more fields to employ this class. In the case of meritorious students drawn from the middle class the system works well as it gives them an impetus to learning. With a view to secure high appointments they always strive for higher degrees and greater distinctions and, if

they ultimately succeed in having a hand in the administration of the country, the country is benefited by their knowledge and skill, and they have the benefit of pursuing their special subjects in favourable circumstances.

There is another class of students whose case we have to consider in this connection—*viz.*, those that are both exceptionally meritorious and well to do. Administrative appointments sometimes do more evil than good in their case. When the philosophic contentment of the Orient plays strong in their mind they feel completely happy in the possession of a high Government appointment, and have thoughts for the higher problems of life. Their time is lost in technicalities, their energies wasted in trifles, the freedom of their thoughts fettered with rigid rules, and their intellects shut up within the narrow limits of their offices. Such cases, though comparatively rare, call for serious consideration.

(*c*) At the beginning it serves, no doubt, as an impetus to learning but, gradually, it grows in importance, and the idea of securing an appointment becomes foremost, in the minds of most students until the real glory of learning is totally eclipsed by an ambition for a high appointment and the real object of learning is absolutely lost sight of. Thus, the emoluments which are only incidental are regarded as essentials and the true essence melts away into nothingness. While, therefore, it is generally advantageous to the progress and the advancement of learning it has a demoralising influence on education at the highest stage.

Yes; special tests are desirable, but the first test should be academic distinction or university degree. The latter should be supplemented by the former in all responsible administrative appointments.

MAITRA, AKSHAY KUMAR.

University examinations should not be regarded as the only qualification for posts under Government. Special training and special tests for different kinds of posts would ensure greater efficiency of practical administration.

MAITRA, GOPAL CHANDRA.

University examinations may, in the absence of better tests, be regarded as, roughly, accurate tests of fitness for administrative posts. If the special tests instituted be of the nature of university examinations they will be needless reduplications. The special tests will be useful in those branches of service which require special training.

MAITRA, HERAMBACHANDRA.

I think it advantageous from every point of view that university examinations should be regarded as a qualification for posts under Government. As I have said in my answer to question 9, in those cases in which knowledge of a highly technical character is required, there may be a period of service on probation and an examination at the end of it.

MAJUMDAR, PANCHANAN.

(*a*), (*b*) and (*c*) I hold it to be advantageous.

I would not advocate such a practice (of having special tests ?) unless candidates for posts are taught some special or additional subjects after they have passed the University examination. Even in such cases I would require that a certain standard of university education should be made a necessary condition.

MAJUMDAR, RAMESH CHANDRA—MAJUMDER, NARENDRAKUMAR—MASOOD, Syed ROSS—MAYHEW, The Hon'ble Mr. A. I.

MAJUMDAR, RAMESH CHANDRA.

I hold it to be advantageous

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning,

that university examinations *alone* should be regarded as the qualification for posts under Government.

MAJUMDER, NARENDRAKUMAR.

There should be special examinations in which candidates competing for different kinds of administrative posts will be required to appear. The courses of these examinations will be adapted to the special administrative problems in special fields of public service.

MASOOD, Syed ROSS.

Some minimum academic qualification should certainly be made essential for those who wish to apply for Government service. Later on, special tests should certainly be instituted for different kinds of administrative posts under Government.

MAYHEW, The Hon'ble Mr. A. I.

The comparison, indicated in the question, of the system adopted in this country with that adopted in other countries seems to me misleading. In India recruitment for the public services is mainly by nomination, while in other countries it is by competition. The question apparently contemplates a comparison between a *qualifying* examination for the public services, and the acceptance of a university degree as a qualification. But the examination in other countries is competitive, not qualifying, and, in England anyhow, is adapted to the curricula of recognised educational institutions. The English system, therefore, differs essentially from the Indian system only in so far as it selects by competitive examination. If this method of selection by examination were abandoned it is more than probable that a general educational qualification—*i.e.*, a university degree or its equivalent—would be demanded.

I agree with the Public Services Commissioners (see paragraphs 38 to 42 of their report) that, for reasons quoted in the report, the time is not yet ripe for the adoption generally of the competitive examination system in India. In the absence of such a system some general educational qualification is obviously necessary. For the higher services this must be a university degree for there is no other recognised institution that could grant the required diploma for success in a qualifying Government examination. If the latter procedure were adopted the public services would suffer. A university degree indicates that a candidate has not merely achieved a certain standard of learning, but has also submitted himself to university discipline, enjoyed in some measure the advantages of corporate life, and acquired, to some extent, correct habits of thought and action. Success in an examination might be gained by private tuition or a course in the cramming establishments that would, undoubtedly, arise and would afford no guarantee of anything except a certain mental agility. The present condition of education in India does not justify any such qualifying examination any more than it justifies selection by competitive examination.

Our University students are at present, for the most part, either prospective Government servants or prospective lawyers. The influence of the present system on would be

MAYHEW, The Hon'ble Mr. A. I.—*contd.*—MAYNARD, The Hon'ble Mr. H. J.

Government servants need not be discussed, while a university consisting solely of future lawyers is inconceivable. A university should comprise students of all classes preparing for all professions, and no system calculated to discourage would-be Government servants from entering academic courses can be encouraged. The institution of a separate qualifying examination would, presumably, be a prelude to the stiffening of the University courses and the combined effect would, undoubtedly, be to discourage the mere postulant for Government service, with loss both to the public services and to the University. The man who wants learning for learning's sake, or a university career merely for its disciplinary training, is rare, and a society composed of such men would be not only limited, but priggish. It is true that our university classes are at present crowded with men who have no chance of attaining the degree or profiting by a university education. It is true also that the time of men who are fit for higher things is now occupied in teaching such men, and that men who might be guiding research scholars are lecturing to men only fit for subordinate routine work in a Government office. This deplorable state of affairs can be remedied by the following means:—

(i) By far greater strictness in the matriculation of students, and in the elimination of the unfit at each successive stage.

(ii) By Government dispensing with a university degree in the case of a considerable number of posts* for which only ordinary common sense, intelligence, and experience are required.

(iii) By increasing our university staff and accommodation, by differentiating more sharply honours work from pass work, and, generally, by adapting courses and teachers more scientifically to the various grades of students. Our universities are at present impeded by the general feeling that academic ruthlessness is "oppression of the poor." Every man must be given his chance "unto seventy times seven" of qualifying for Government service. But, if this feeling is analysed, it is found wholly indefensible. Those who give loudest vent to it are also the keenest advocates for competitive examinations. They ought not, therefore, to grumble if the selection of the fittest is taken up at the beginning or middle of the University course, instead of at its close, in a separate examination. They should trust the University authorities as much as they are ready to trust a Government examination board.

It is, therefore, necessary and possible for universities to safeguard themselves against abuses of the present system by greater strictness, improved staff, and more elasticity. Government can also relieve the pressure in universities by removing certain posts from the University qualification. But to institute a separate qualification test would be an unnecessarily drastic measure. It might convert the universities into "homes of learning," but they would be desolate homes in which few would seek, or find, what the citizen of India requires.

MAYNARD, The Hon'ble Mr. H. J.

A certain proportion of the members of the Punjab provincial civil service (who are eligible for some of the posts ordinarily held by the Indian civil service, and are officers of gazetted status and good pay) is appointed on the results of a competitive examination among university graduates, who are admitted to the competition after selection by Government, on the recommendation of certain authorities, including the University. In the competitive examination the fixed subjects are:—

(i) English composition.

(ii) Indian law and revenue (the latter means the law of landlord and tenant, and the system of administering the land revenue).

(iii) Mathematics.

* For such posts a school-leaving certificate would be a sufficient qualification.

MAYNARD, The Hon'ble Mr. H. J.—*contd.*

The optional subjects are :—

(*a*) The elementary principles of British government.

(*b*) History—English and Indian

(*c*) A classical language—Arabic, Sanskrit, or Latin.

One striking feature in this examination is that science has no place in it at all ; and, in practice, no science graduate is ever successful in it.

Another noticeable fact is that mathematics includes the whole of arithmetic ; algebra, to simple equations, including ratio and proportion ; and the first three books of Euclid. Evidently, this was all prescribed a good long time ago when Euclid was still in use, and when the standard of attainments in mathematics for graduates was a very low one.

One result—an accidental result as it were—of the low standard of this examination is that it does not, to any marked extent, dominate the course of university education. It only affects it, I should say, by diverting some ambitious students from science and attracting them to history and linguistic studies, particularly English.

It seems impossible to draw, from the working of this examination, any inferences as to the effects upon university education of a real competitive examination of high standard such as are the examinations for the superior civil services in the United Kingdom.

But the civil services in the United Kingdom are only one group of openings for the capable student. The most ambitious and the keenest of all are not content with the modest and assured subsistence which these services offer. The position is certainly different in India, where alternative openings are very few and salaries in the superior services are by the Indian standard high, while the social position of a Government servant of "gazetted" status is immensely coveted. A real competitive examination held in India for such a service as the Indian civil service would entirely dominate the course of higher education and, unless the universities took to teaching its subjects and to paying a good deal of attention to the probable requirements of its examiners, students would turn elsewhere, and cramming establishments would be thronged. Perhaps an idea of the influence of such an examination can best be conveyed to purely English experience by saying that it would be to Indians something like what an examination held in England for appointment to probationary peerages, with salaries rising from £1,000 to £5,000 in the ordinary course and to £10,000 or £20,000 for the specially successful, would be to Englishmen. The competitive examinations in China constitute a possible parallel.

Something similar would be true of any special examination tests instituted for other kinds of administrative posts under Government. Either they would follow the University curricula, in which case there would be mere duplication ; or they would depart from them, in which case the University would be dragged behind or give up its function to crammers.

There are some signs of change. The really successful barrister or business man in India is so far more successful than the successful official, that service under Government is less than it was the unique object of ambition. There are also indications of disappointment and disillusionment in some of the Indian services. But, for the present, and particularly in the Punjab, I see no escape from the conclusion that university examinations must continue to be regarded as the qualification for all the higher administrative posts.

Nor is the case of the lower administrative posts distinguishable. Let Government cease to recognise the University matriculation as a qualification for service and substitute a school-final examination of its own. Eight to ten thousand students will take the school final instead of taking the matriculation examination. The Education Department, instead of the University, will hold the examination, and Government will, presumably, compensate the University for the loss of that large fraction of its income which is derived from fees. The University will be compelled to adjust its entrance standard to the new examination. Those wh believe that the Education Department would make a far better job of its school final than the University now makes of its matriculation examination, and that it would be able (in spite of the notorious defects of character in masters and the grave suspicion with which school records are regarded by parents and pupils) to make an extensive use of the continuous history of

MAYNARD, The Hon'ble Mr. H. J.—*contd.*—MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN—MAZUMDAR, C. H.—McDOUGALL, Miss ELEANOR—MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur—MITRA, RAM CHARAN—MITTER, Dr. DWARKANATH.

the boys' work kept by the men who know most about them, may see some gain in this. My own feeling is that we shall have the same thing under a new name and a new extension of departmental activities.

What is wrong is, not this or that examination, but the domination of all life and all ambition by the desire for Government service, and that is to be overcome only by the creation of new openings such as political and economic departures will gradually make.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN.

I do not see what better tests than the University examinations can be applied to fill up posts in the public services. If all the subjects, including economics, politics, commerce, and industries, are included in the University curricula I do not understand why a separate examination should be held for the purpose of these appointments. Conditions in other countries may be different; but in India any such separate test is sure to be detrimental to the best interests of university education and likely to lead to patronage and nepotism. The nomination system has already sufficiently demoralised both the services, as well as university education, and any separate tests for these appointments are bound to impair higher education, particularly if such tests are not applied by the University itself.

MAZUMDAR, C. H.

Not advantageous; special tests should be instituted for different kinds of administrative posts under Government.

McDOUGALL, Miss ELEANOR.

(*a*), (*b*) and (*c*) In many ways this is disadvantageous to all the three. But, if special tests are instituted, it is difficult to see how young men can be prepared for these examinations. Either Government must provide special colleges for their instruction, or a race of "crammers" will arise whose training will be far inferior to the least successful university training. In either case, disappointed candidates must find themselves without qualification for any other kind of work.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

I should advocate the practice of instituting special tests for different kinds of administrative posts under Government. By tests I mean special examination in special subjects. Of course, the candidate must have an adequate knowledge of English, mathematics, history, geography, and science.

MITRA, RAM CHARAN.

The passing of a university examination *alone* should not be regarded as a qualification for posts under Government. Particular posts require particular training. But a candidate who by passing university examinations has proved his intelligence may, on receiving the necessary training, prove himself fitter than one who has simply been trained to the ordinary duties of the post.

MITTER, Dr. DWARKANATH.

(*a*), (*b*) and (*c*) I hold it advantageous that university examinations should be regarded as the qualification for posts under Government. I do not advocate the alternative of special tests which prevails in other countries.

MOHAMMAD, Dr. WALI—MONAHAN, The Hon'ble Mr. F. J.

MOHAMMAD, Dr. WALI.

I think that university examinations should not be regarded as the qualification for posts under Government. The school-leaving examination can easily replace the matriculation examination and serve as the necessary qualification for entrance into the lower or middle grades of the public services. It can also serve as the equivalent of the matriculation for the purpose of entering the University. For all higher grades of public service special tests should be instituted. For instance, for the judicial service, students studying for the LL.B. degree, for the medical service, students studying for the M. B. degree, for the Public Works Department, students studying for B. E., for the educational service, students studying for the B.T. or L.T. degrees should be made eligible and chosen by means of special suitable tests. For general administrative posts suitable subjects may be chosen. Thus, students will undergo a full academic course in their respective fields and then pass a special "State examination." By holding the examination for entry to the services at times which coincide with the termination of definite stages in the educational courses of candidates, and by basing them on the courses of study pursued at the University, the best possible results can be achieved. Moreover, the examinations should be based on such previous preparation that candidates who fail to come out successfully can, without difficulty, turn to some other occupation. The interest of the public services demands that the best men should be selected. However, a judicious combination of the method of nomination, with competitive examinations, may be necessary to take into consideration such powers and qualities as cannot be properly tested by an examination, and to secure the adequate representation of some important minorities in the public services.

Students should be subjected to as few examinations as possible and, the moment examinations are subordinated to teaching, their evil influence will disappear. The task of advancing and promoting learning and knowledge must necessarily be confined to a few. Learning will advance only when knowledge is acquired by the living word of mouth, when an atmosphere is created where master minds abound and students receive inspiration by coming in daily intercourse with their teachers and fellow-students—all seeking for truth and knowledge. However, it should not be forgotten that the vital needs of the country demand that the education of its youth should have some definite relation with their future occupations.

MONAHAN, The Hon'ble Mr. F. J.

My answer to the first part of this question is in the negative, and to the second part in the affirmative. It is necessary, in further explanation of my answer to question 11, to say a little more on the subject of educational tests for the public services and the professions, since, for a large proportion of students, admission to the one or the other will always be a main object of higher education. There are certain Government posts which it will be found desirable to fill by the appointment of men of mature years chosen in different professions—judicial and medical appointments may be filled respectively by the appointment of practising lawyers and doctors, engineering appointments from among engineers, and so on. In such cases, the candidate may have qualified to practise as a lawyer, doctor, or engineer, as the case may be, by possession of a university degree, but his qualification for Government service will not be the degree alone. It will be the degree *plus* the experience, reputation, and eminence which he has gained in the practice of his profession.

To other posts and services candidates must be admitted at an early age and, for such posts and services, the best method of recruitment in Bengal is, I am convinced, that of open competitive examination, subject to certain safeguards. The present system of selection from among candidates who have passed university examinations is most unsatisfactory. I think that competitive examinations for admission to the public services should be in charge of a permanent commission, and that, before admitting any candidate to such an examination, the commissioners should satisfy themselves, as far as possible, that he is of good moral character, that he is physically

MONAHAN, The Hon'ble Mr. F. J.—*contd*

fit, and that he has had a proper education. The other safeguard which I would suggest is an arrangement for securing an adequate proportion of Muhammadan candidates, to which I will refer further on.

With the different colleges affiliated to the University teaching different courses, leading up to degrees of varying value, the competitive examinations for Government service would have to be distinct from any degree examination, or intermediate examination, leading up to a degree, except, perhaps, in the case of some technical services. If, for instance, there were only one engineering college, or one agricultural college, affiliated to the University, appointments to an engineering service, or an agricultural service, might be offered to candidates in the degree or diploma examination of the engineering or agricultural college, as the case might be, in the order in which they stood in the result of the examination. For such services as the provincial executive service, the police, or the registration department, there would be a separate competitive examination, which would be designed to test the general education of candidates, and might include optional, as well as obligatory, subjects. English, for instance, would be an obligatory subject, and a minimum proportion of marks to be obtained in English might be laid down. As some of the candidates would receive their education through the medium of Bengali, and others through English, the examination would have to be bilingual, that is, conducted in Bengali as well as English, and the examiners acquainted with both languages. The commissioners might arrange with the University to conduct the examination for them, or have it conducted by a separate agency.

An objection which has been raised to filling Government appointments by open competitive examination is that it does not secure an adequate representation of the different classes of the population in the public services, but, in Bengal, as regards services such as the provincial executive and judicial services, the registration department, and the police, the only class for whom it is necessary to make special provision is Muhammadans. A certain proportion of appointments may be reserved for Muhammadans either by giving to Muhammadan candidates at each open competitive examination a proportion of the vacancies, according to the relative order in the result of the examination of such candidates *inter se*, but irrespectively of their places in the list as compared with candidates drawn from other communities, or by filling, from time to time, a certain number of appointments by means of a competitive examination open to Muhammadans only. The latter plan is, I think, preferable, as the other involves the apparent injustice of giving an appointment to a Muhammadan in preference to a Hindu who has passed higher than he has in an examination for which they have entered together. There may be some services, such as the customs preventive service, to which it may be found advisable to appoint Europeans and Anglo-Indians only, and vacancies in which may be filled by competitive examination open to members of those classes alone.

It may be apprehended that, when university examinations cease to be regarded as the qualification for posts under Government, the number of students entering affiliated colleges and studying for degrees will be greatly reduced, and cramming establishments may be started to prepare candidates for the competitive examinations for Government service. I think, however, that there would always be a sufficient number of students desirous of taking a degree, so as to qualify for the practice of some profession, and that many would take a degree before presenting themselves at the competitive examination. The number of sons of wealthy men who are not under the necessity of entering Government service, or practising any profession, but who matriculate in the University and study for a degree, by way of completing their education, is also, I believe, on the increase. I am not sure that the changes which I am here advocating would tend to reduce the number of students entering the University but, if it did, there would be no great harm. I think that the rule requiring the commissioners to satisfy themselves that candidates had received a good education would be some check on cramming establishments. The commissioners might refuse to admit to the competitive examination candidates prepared at institutions not approved of by them. Preparation for the competitive examinations for Government service need not necessarily entail cramming; it is likely that colleges affiliated to the University would include special classes for such preparation, and there might also be special institutions for

that purpose, conducted on sound lines, to which students would go in continuation of their college course, or of private study.

It would not, of course, be possible to exclude from the competitive examinations for Government service candidates educated privately, but it seems probable that the great majority of candidates would go to colleges affiliated to the University. Under the scheme contemplated the Commission would obtain information of the history of each candidate's education and, in the case of private students, the commissioners would be expected to satisfy themselves that the education had comprised systematic, continuous, and regular teaching by competent tutors. Parents would probably find it more difficult and expensive to provide such tuition than to have their sons educated at colleges. The evidence required of moral character, too, should be of a serious kind and; while, in the case of a college student the certificate of the principal of the college would be readily accepted for a private candidate certificates of persons of repute and standing personally acquainted with the candidate for a considerable time would be required, and they would be more difficult to furnish. All of these considerations would be inducements to parents to send their sons destined for Government service to recognised schools and colleges for their education.

I am not competent to make detailed suggestions as to the steps by which the transition should be accomplished from the present system of higher education to that which has been sketched in this note, but I think that it should be made gradually, and with due regard for the interests, and even for the prejudices, of those who are working under the present system and are accustomed to it. Among the first steps to be taken would be the announcement of the new policy, and the organisation of the Commission for the selection of candidates for Government service, and of the competitive examinations for that purpose. The existing orders and rules with regard to the use of English in official proceedings and records should be revised. The present practice of teaching all subjects through the medium of English in the upper classes of high schools should be discontinued in all Government and aided high schools, as far as possible, immediately, and completely, as soon as the requisite text-books in Bengali can be provided. The Presidency College might continue for a time to be an institution teaching through the medium of English, students entering that college in future being required to pass a matriculation examination of a much higher standard than the present matriculation examination of the Calcutta University, and the standard of the college degrees being also made higher than that of the present University degree. The effect of these changes on the number of students entering the Presidency College would determine the future of that institution. The case of each Government college outside Calcutta should be examined and, where it is found—as it probably will be in the case of most of such colleges—that it is not necessary or practicable to maintain a college as an institution teaching through the medium of English, on the lines of the Presidency College, with a fully adequate staff and a suitable matriculation test, steps should be taken to reorganise it as soon as possible as a college teaching through the medium of Bengali. Such encouragement as may be necessary should be offered for the production of text-books in Bengali for use in colleges. The managers of private colleges would be left free to adopt English or Bengali as their medium of teaching but, when they adopt the former, pressure should be put on them by the University authorities to adopt a standard of matriculation such as will ensure that students whom they admit are really capable of following lectures in English, and to employ a staff competent to give instruction in English. It is probable that, in that case, most of the private colleges would ultimately choose Bengali as their medium of instruction.

APPENDIX.*

One of the chief causes of the short outturn of work in Government offices in India, necessitating the employment of excessively large staffs, is the fact that work is carried on, to a large extent, in a language which is foreign to the officials and clerks employed. Though, practically, all clerks now employed in district offices have some knowledge of English real familiarity with the language is very rare among

* This was written in 1908 as a note of dissent from the report of a committee appointed to enquire into the remuneration of clerks and the organisation of work in district offices in Eastern Bengal and Assam.

MONAHAN, The Hon'ble Mr. F. J.—*contd.*

them. They can make simple entries in registers in English, but make them much slower than they would in their own language. They take a long time to look up any reference in an English book or file—even in a register written by themselves—and, in totalling English figures, they repeat them aloud in Bengali. In conversation they can understand and use a few English phrases readily enough but, if any unexpected question or order is addressed to them in English, they usually fail to understand it till it has been repeated, and it often has to be explained in the vernacular. In these circumstances, it is not surprising that work which is done in English progresses slowly, and that the practice of keeping records and registers in English leads to a multiplication of hands. The Bengal Ministerial Officers Committee have recorded it as their experience that the clerk of to-day turns out much less than his predecessor, who sat on a mat and worked in the vernacular. (Paragraph 1, chapter II, part I of Bengal Committee's report.)

2. While Indian gazetted officers have a better knowledge of English than clerks, they naturally work at a disadvantage in what is to them essentially a foreign language.

Many mistakes, much misunderstanding, and waste of time are due to the issue of orders in English to be carried out by clerks who are but slightly acquainted with that language and, when the officer making the order is himself a native of India, there is a double waste. Every order expressed in English, and addressed to an Indian subordinate, has to be translated into the vernacular. Even if the person to whom it is addressed has some knowledge of English he has to make a mental translation before he takes action on the order and, before the final executive result of the order is attained, it has usually to be translated to someone who knows no English. An Indian officer making an order in English mentally translates it from the vernacular, and it has then to be retranslated for the benefit of the person who is to carry it out. All this translation and retranslation represents, in the aggregate, an enormous amount of time and labour, and very seriously detracts from the quality of the work done.

3. The use of English in records and in registers is convenient for European superior officers, and saves them trouble in inspecting offices and supervising the work of their subordinates. It seems to me, however, that this convenience is dearly purchased by the expenditure of time, labour, and money which the practice entails. It is also one of the causes of the neglect of the vernacular by European officers, and of the administration being out of touch with the people. It is a waste of time to insist on thousands of entries in a register being written in English by low paid clerks when only a very few of them are likely ever to be read by any European officer. It is also a waste of time to insist on the writing in English of thousands of routine orders on cases which are passed by Indian officers, to be carried out by Indian subordinates, because a very few of the cases may come before the district officer in the course of inspection or on appeal. The knowledge of the vernacular which a district officer is supposed to possess should enable him, with very little trouble, to read vernacular entries in registers and orders on cases so far as is necessary for the purposes of inspection.

4. Arguments which have been advanced against the more extended use of the vernacular in offices are:—

(i) that it would be a retrograde change,

(ii) that vernacular writing takes up more space than English, and

(iii) that vernacular writing is often difficult to decipher, even for native officers.

As regards the first argument I would say that I do not think that any measure which makes for greater economy and efficiency can properly be described as retrograde. It may be said that we are aiming at improving the pay and the educational standard of clerks, and also at improving the teaching of English in schools, but I think that it will be a very long time before the knowledge of English becomes so general in the country as to justify the keeping of official registers and records generally in English. That stage will not be reached, if ever, till English has ceased to be what it is essentially at present—a foreign language to the educated native of India. It is possible for a country to become bilingual, and to adopt a language other than the vernacular as the official, court, and literary language to such an extent that every native of the country of good education and social position will use the court language with perfect facility, in addition to, or to the exclusion of, the vernacular. Such is the position of French in Belgium, and of Tuscan in Italy, outside Tuscany; but a very long time must elapse before English

MONAHAN, The Hon'ble Mr. F. J.—*contd.*

can attain this position in India, and I think that the use of English in our offices should follow, and not anticipate, such a development. For a very long time to come English will continue to be a foreign language in India and, while it is so, the use of English in district offices and courts will entail a certain additional outlay of time and labour and should, I venture to think, be restricted to the purposes for which it is absolutely necessary.

5. Bengali writing is very little, if at all, less compact than English. While the individual Bengali letters take up rather more space than the Roman much space is saved by the fact that no letter is required to represent the short or neutral "a" sound, by the sound of "u", following a consonant being represented by a symbol below it, and also by the use of compound consonants. The use of convenient abbreviations is also very common in the language. Sums in Indian money, and areas by Indian measure, are expressed more compactly in Bengali than in Roman notation. It is, however, not a question of the comparative merits of English and Bengali. The argument in favour of the vernacular is that the people of this country, like other human beings, use their mother tongue, whatever its defects may be, with greater facility than a foreign language.

6. It is true that much of the vernacular writing in district offices is difficult to decipher, but this is merely because such writing is often very carelessly done, and it is believed that little importance is attached to it by European superior officers, who very rarely read anything in the vernacular. Vernacular writing is also neglected in high schools. The writing of subordinate officials, such as mandals, who are educated entirely at vernacular schools, is very clear and legible. There is no reason why legibility and neatness should not be insisted on in the case of the vernacular, as in the case of English official writing. It is probable that, by making the vernacular a subject in the examination for clerical appointments, and extending its use in all district offices, we should cause greater attention to be paid to it in schools—a change which would be very beneficial to school education.

7. I would propose, then:—

(*a*) That, as a general rule, registers in district offices should be kept in the vernacular.

(*b*) That all routine orders on revenue cases should be written in the vernacular.

(*c*) That all communications which are addressed to Indian officers and clerks should be allowed to be written in the vernacular.

(*d*) That all orders written by Indian officers should be in the vernacular, except final orders in contested cases in which an appeal lies.

The question of the recording of evidence in English by Indian officers is a more difficult one. The records often come before European officers on appeal, and a voluminous record of evidence in the vernacular is certainly troublesome for any European officer to deal with. Moreover, the officers making the records have a much better knowledge of English than clerks and, as all subordinate judges and munsiffs have lately been empowered to record evidence in English, I do not make any recommendation on this subject.

Reports and other communications addressed to European officers should be in English, if made by an English-knowing clerk or other official, but the preparation of translations of vernacular reports and petitions should be discouraged.

Letters, reports, and returns submitted to superior authorities, inter-district, and inter-departmental correspondence should also, as a rule, be in English. I think, however, that the rule prohibiting the transmission of vernacular *rubakaris* from one office to another should be relaxed. Such *rubakaris* are very convenient where the action to be taken on them is a matter of routine, which is ordinarily entrusted to clerks. There is no reason why vernacular *rubakaris* should not be made concise and clear.

8. It would appear that advocacy of the use of English in offices is due partly to the idea that the employment of the vernacular would mean the admission of incompetent clerks who do not know any English, and would thus result in inefficient and slovenly work. It is, however, far from my intention that any persons ignorant of English should be appointed as clerks, and the proposed scheme of recruitment should guard against this. My suggestions are made solely with the object of saving time and labour, and thus rendering possible reductions in the staff and improvement in the efficiency of district offices.

MONAHAN, The Hon'ble Mr. F. J.—*contd.*—MUKERJEE, ADHAR CHANDRA—MUKERJEE, BIJOY GOPAL—MUKERJEE, RADHAKAMAL.

9. The changes here proposed are not likely to be popular at the outset with clerks or with Indian gazetted officers, and this is very natural. All natives of India who have acquired any knowledge of English rightly value it as a mark of superior education, and as a medium of advanced civilisation, and are anxious to increase their opportunities of practice in the language. An official tradition, moreover, associates the use of English with the ideas of superior efficiency and higher official status and pay, and it has led to an increase in the number of comparatively well-paid clerical appointments. We find many other instances of apparent attachment of clerks to practices which make their work more difficult. I do not attribute to Indian clerks generally the deliberate intention of causing unnecessary clerical work with the object of adding to the number of appointments, and believe that these practices should be ascribed chiefly to the influence of routine which is so powerful over clerks in all countries. But the fact that the general use of English in offices has led to an increase in the number of Government posts available for the classes who enjoy a practical monopoly of English education, and the apprehension that the partial abandonment of English in favour of the vernaculars may be followed by a reduction in the number and pay of clerical appointments, have, no doubt, also their influence in inducing the clerical staff to accept cheerfully the addditional labour which the use of English involves.

10. It is no part of the object of these suggestions to discourage English education and, as already explained, I am thoroughly in favour of making a knowledge of English an indispensable qualification for all clerks in district offices. So far from wishing to reduce the pay of clerks one of my objects is to make a substantial improvement in their pay and status possible. I do not believe, however, that it is really an advantage to the people, or to Government, that the number of clerical appointments should be artificially kept up by unnecessary insistence of the use of English in official work, and it appears to me that, where this is the case, largely increased expenditure on clerical establishments should not be incurred.

As the above views are not accepted by my colleagues on the committee I am obliged to record this note of dissent.

MUKERJEE, ADHAR CHANDRA.

University certificates should not be a disqualification, but all appointments in Government service should be thrown open to competition among people possessing prescribed academic qualifications.

MUKERJEE, BIJOY GOPAL.

Success in university examinations should be regarded as sufficient qualification for appointment to posts under Government. With regard to the appointment of administrative officers there need not be any special test at the initial stage; but, in certain cases in which these officers are expected to possess a technical knowledge of some subject not included in the courses of study for the University examinations they have passed, they may be required to undergo a special departmental test when they have had practical training in that subject under the supervision of some really capable and well-experienced officers of their own department.

MUKERJEE, RADHAKAMAL.

I do not consider the system of regarding the University examinations as the qualification for posts under Government objectionable. But graduates entering the public services must be required to take up general and special courses in political science, political economy, and sociology.

Topics such as those that follow ought to be included :—

The machinery of Government.
Legislative and administrative methods.

MUKERJEE, R. DHAKAMAL—*contd.*—MUKHERJEE, B.—MUKHERJI, PANCHANANDAS—MUKHOPADHYAYA, Dr SYAMADAS—Murarichand College, Sylhet.

Crime and reform.
Savings banks and life insurance.
Co-operation.
Parcels post and postal savings.
Crowd psychology.
Housing and homes.
Community education.
Sanitation and town-planning.

Civil education ought to form an integral part of a modern university not merely to give training for the public services as a profession, but also to train the coming graduates for leadership in thought and action in public life. Only a very small percentage of graduates will be engaged in public service. An all-round civic education is essential for an uplift of the ideals of action and an increase in the knowledge and capacity of our public men in the future.

MUKHERJEE, B.

I believe it will be to the interest of all alike that university examinations should not be regarded as the qualification for posts under Government, and the practice adopted in other countries of instituting special tests for different kinds of administrative posts ought to be adopted. University education gives a general equipment to a man which enables him to take advantage of any special line he may want to enter. The qualifications necessary for various administrative posts are more or less special and special tests ought, therefore, to be adopted in order to recruit men for such services. Moreover, at present, there is a sort of commercial aim in education—the end of the education, in most cases, is supposed to be Government service. Thus, the true aim of education is lost sight of and, consequently, the progress and advancement of learning suffer.

MUKHERJI, PANCHANANDAS.

University examinations may, with advantage, be regarded as the qualification for those kinds of posts (*e.g.*, those in the educational service) which do not require any technical administrative knowledge. But for those administrative posts which do require such knowledge (*e.g.*, the provincial executive and judicial services), and which are now filled up by nomination, I would advocate the practice of instituting special tests.

MUKHOPADHYAYA, Dr. SYAMADAS.

Unless university degrees were regarded as necessary qualifications for Government employment I fear there would be less inducement for university education and the students, as well as the public services, would materially, and morally, suffer. To my thinking, there is a difference between Government employees recruited from graduates and those recruited solely by other tests or considerations generally in favour of the former.

Murarichand College, Sylhet.

(*a*), (*b*) and (*c*) For higher posts under Government particular competitive examinations might be instituted in which only graduates should be permitted to appear. This would be advantageous.

NAG, P. N.—NAIK, K. G.—NANDI, MATHURA KANTA—NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA—NANJUNDAYYA, H. V.—NEUT, Rev. Father A.

NAG, P. N.

It would be better to adopt, besides university examinations, special tests for different kinds of administrative posts under Government.

NAIK, K. G.

(*a*), (*b*) and (*c*) University examinations do give a sufficient guarantee for selection for the public services. The system of taking university examinations as the qualification for posts under Government serves all the three purposes in a satisfactory manner.

Yes; it would be better to adopt the practice of instituting special tests for different kinds of administrative posts under Government.

NANDI, MATHURA KANTA.

I do; but I am in favour of instituting special tests for different administrative posts under Government over and above the required University qualifications.

NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA.

A special examination should be held as a test for different kinds of administrative posts. The courses should be adapted to the special problems of Indian administration.

NANJUNDAYYA, H. V.

I do not perhaps quite understand the drift of these questions. So long as university examinations are not pronounced to be disqualifications for posts under Government all authorities who have the disposal of patronage in their hands are likely to prefer the more competent of applicants for posts to the less competent. Of course, one who is attached to learning for its own sake, and pursues it with a single-minded devotion to it, irrespective of its practical uses, is likely to achieve greater success in his studies than one who is in search of practical use for everything he has to learn. But it is not necessary that everything that he learns should be practically useless to him in after life. Mere ornamental accomplishments are good enough for those who have no need to work for a living. But there are few such in India; and the need for learning which can be turned to practical account is predominant. The University examinations should be regarded as passports for employment under Government, as they have been hitherto; to the extent that the general culture which they evidence is regarded as fitting men for public employment. Over and above this special tests of fitness for particular classes of work should be instituted. The result would be to give an incentive to many persons to take a university course, which they would be unable to do if the course simply made them mere 'gentlemen' likely to shine in general society but not likely to turn their accomplishments to any practical account.

NEUT, Rev. Father A.

I consider it detrimental to the public services, to the students, and to the progress and advancement of learning that university examinations should be regarded as the qualification for posts under Government. The system is responsible for the large number of incompetent students that flock into the University courses; they do not care for education or knowledge for itself, but only for the sake of the reward which they look for, and

NEUT, Rev. Father A.—*contd.*—North Bengal Zamindars' Association, Rangpur—PAL, The Hon'ble Rai RADHA CHARAN, Bahadur—PARANJPYE, The Hon'ble Mr. R. P.

are bent on securing, by every possible means, were it even at the cost of all principles of honesty. The system, again, encourages teaching for an examination only. Hence, also, the anxiety of candidates to be trained by anyone who achieves success at the ordeal, or who is appointed examiner in some subject or other. Hence, again, the canvassing for the post of examiner for the sake not so much perhaps of the remuneration given by the University, but chiefly as a magnet to attract a crowd of students. Nothing encourages cram so much as the system in question.

May I here quote Matthew Arnold to show that examinations do not necessarily ensure the choice of the most fit? He wrote:—

> "I once bore part in the examination for the civil service, and I can truly say that the candidates to whom I gave the highest marks were almost without exception candidates whom I should not have appointed. They were crammed, not formed, men. The formed men were the public school men who were ignorant of (that is, not especially prepared for) the subject of my examination, *viz.*, English literature."

I would rather advocate the choice of candidates for posts under Government from those presented by the heads of first-class educational establishments as their best all-round men, say, three from each for every vacancy. The Government department head himself, or some reliable and competent high official, would interview them—a kind of informal oral examination—and those who seem to be qualified would be submitted in the vacant post to a practical test of what they know. If they have received a good general education they will most likely, after a very short time, show their worth and prove fit.

Such a method would be in keeping with an excellent principle laid down in a despatch from the Home Government of 1859 (section 98):—

> "Education is to be aided and supported by the principal officials in every district, and is to receive, besides, the direct encouragement of the State by the opening of Government appointments *to those who have received a good education, irrespective of the place or manner in which it may have been acquired.*"

North Bengal Zamindars' Association, Rangpur.

(*a*), (*b*) and (*c*) The answer is in the affirmative.

The institution of special tests is necessary for posts requiring special knowledge and efficiency.

PAL, The Hon'ble Rai RADHA CHARAN, Bahadur.

(*a*), (*b*) and (*c*) The reverse of advantageous.

Special tests should be instituted for entry into the different services.

PARANJPYE, The Hon'ble Mr. R. P.

I think that, except for specialist departments, it is not desirable that posts under Government should be awarded on the results of university examinations. As regards the services themselves it does not make very much difference, though it is even there perhaps better that the men appointed should have gone through their course without any consideration of posts to be obtained as the result. All that I would insist on is to require that every applicant for a post—or for examination on the results of which recruitment is made—should possess a minimum university qualification.

As regards students I think they should be encouraged to consider only the purely academic point of view in the prosecution of their studies. If the whole of their future

PARANJPYE, The Hon'ble Mr. R. P.—*contd.*—People's Association, Khulna—RAHIM, The Hon'ble Mr. Justice ABDUR—RAY, Dr. BIDHAN CHANDRA.

is to depend on the success in these examinations they are likely to neglect the less paying subjects and also the interests of their health. I also think that, for most of the superior posts under Government, recruitment should be made about two years after the age of graduation.

But the greatest harm will be done to the cause of learning if university examinations are made the sole tests of admission to the public services. The point need not be argued as it is quite evident. Still I would ensure that the competitive examinations should be based mainly on the lines of the University examinations.

For administrative posts, *e.g.*, in the Revenue Department, Finance Department, and other similar departments, I would create a new examination like the civil service examination. For some other departments, like the police, it may perhaps have to be a limited examination, after the nomination of candidates. For the educational, medical, and similar departments an independent board of appointments will have to select candidates on a personal interview, regard being had to university, and other, qualifications. The question is, however, too wide to be satisfactorily discussed in an answer of this kind. I am, however, opposed to making university examinations the sole tests of fitness for appointment to administrative posts.

People's Association, Khulna.

We certainly hold it to be advantageous, but university examination should not be the sole qualification for posts under Government, but the work and general behaviour of students while at high schools and colleges should be taken into consideration in deciding fitness for employment.

Our answer to the second part of the question is a strong affirmative.

RAHIM, The Hon'ble Mr. Justice ABDUR.

On the whole, I am of opinion that it is, in the present condition of things, advantageous to the public services and to students that the degrees of the University should be recognised as a qualification for Government service. This ought not to cause any detriment to the progress and advancement of learning now that it is well recognised that the passing of a university examination can only, in a small proportion of cases, lead to employment in a Government department. Further, if the present system be changed, as proposed, and students brought under the effective guidance of able teachers, there will be very little danger of the system of examinations being abused for indirect purposes. The question of instituting special tests for different kinds of administrative posts under Government rests however, on public considerations of a different character which it is not necessary to discuss here.

RAY, Dr. BIDHAN CHANDRA.

(*a*) If the University examinations be so conducted that they afford a guarantee of fitness for the public services these services should certainly benefit by regarding these examinations as qualifications for posts under Government. The services would then possess the best men that the University produces. Before actually being appointed to administrative posts under Government it is always desirable to let the candidates go through special tests.

(*b*) The advantage of such a procedure as indicated above is obvious in the case of students, specially of those who depend for success in their efforts to obtain posts under Government upon their personal equipments, rather than upon help and backing from outside. A fair field should be open to all, and the deserving ones will succeed.

(*c*) The progress and advancement of learning will not be helped by such a procedure. Education as a means to a profitable end cannot bring forth the highest form of learning. But, while here in India, as elsewhere, education and learning have a commercial value this drawback is inevitable.

RAY, Rai BISWAMBAR, Bahadur.

(*a*), (*b*), and (*c*) Both university examination results and special tests should be taken into consideration in making appointments under Government.

RAY, Maharaja KSHAUNISH CHANDRA, Bahadur.

In the interest of the public services, for the progress and advancement of learning, and for the welfare of the students it is desirable that university education should be regarded as the qualification for posts under Government. University qualifications must, however, be supplemented by special tests suited to the different kinds of services. University education cannot be dispensed with for higher appointments as it gives a general culture and broad outlook and disciplines character. Special tests alone will seriously hamper the efficiency of the public services inasmuch as this may lead to some amount of favouritism in the selection and appointment of candidates, creating discontent in the country.

RAY, MANMATHANATH.

It is advantageous to the public services, to the students, and also to the progress and advancement of learning that university examinations should be regarded as a qualification for posts under Government not merely in the executive or the judicial services, but in all appointments under Government. This was laid down in the education resolution of Lord Hardinge published on the 10th October, 1844, and has remained true till to-day. In some cases, the University distinction is to be the sole test, as now, *e.g.*, in the cases of nomination to certain services; in others appointments should be thrown open to competition by graduates and undergraduates, admission to the different examinations being controlled by different prescribed University qualifications; for example, all appointments on an initial salary of R100 or upwards should be thrown open to M.A.'s or M. Sc.'s, and appointments below R100 might be thrown open to graduates or undergraduates, as the case may be, according to the pay attached to those appointments. All nominations otherwise than on the ground of educational qualifications should be abolished.

RAY, Raja PRAMADA NATH.

(*a*), (*b*) and (*c*) Yes.

RAY, SARAT CHANDRA.

(*a*), (*b*) and (*c*) Yes; I hold it to be advantageous that university examinations should be regarded as the qualification for posts under Government. If nomination is the only method adopted for appointment under Government then I am sure that the public services, as well as the advancement and progress of learning and the student community, will suffer.

Yes; I would advocate the practice of instituting special tests as suggested in the last part of the question.

RAY, SATIS CHANDRA—REYAZUDDIN, Syed, Quazi—ROY, HIRA LAL—ROY, The Hon'ble Rai SRI NATH, Bahadur—ROY, The Hon'ble Babu SURENDRA NATH.

RAY, SATIS CHANDRA

(*a*), (*b*), and (*c*) I do not consider it to be advantageous to any of these three interests that university examinations should be regarded as qualifications for Government service. To the public services this course is disadvantageous for the reason that they do not attract the most suitable type of men; to students it is disadvantageous for the reason that they diminish the spirit of learning for its own sake and create a hankering for examination (and not for knowledge) as the only available avenue to the public services; on the progress and advancement of learning its effects are obvious. I would, without hesitation, adopt the system of instituting special tests for different kinds of public appointments The present system, for instance, of admission into the provincial executive service is utterly demoralising to candidates as it encourages flattery and scrambling for Government favours, which are not to the best advantage of the service, which professes to encourage self-respect and a high standard of morality among its members. The system is defended on the ground of rewarding hereditary loyalty; but, while rewarding loyalty among a certain narrow class of people it creates distrust and diffidence in the fair and equal treatment by Government among a wider circle of educated men.

For high administrative posts I would have men with university degrees further tested by a special examination; but, for subordinate posts which do not require high academic culture, special tests after the matriculation seem to satisfy the requirements of the public services.

REYAZUDDIN, Syed, Quazi.

University examination alone should not be regarded as the sole qualification for posts under Government. Of course, it may be one of the qualifications, and may be accorded but a secondary consideration in most cases where other qualifications of fitness are present.

ROY, HIRA LAL.

I would advocate the instituting of special tests for different kinds of administrative posts under Government, and the examinations should be held by the University.

ROY, The Hon'ble Rai SRI NATH, Bahadur.

Distinction in university examinations should be taken as a basis for appointment to the Education Department. But for other posts under Government a competitive examination should be held among candidates who have obtained higher education.

ROY, The Hon'ble Babu SURENDRA NATH.

I hold it to be advantageous

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning,

that university examinations should be regarded as a qualification for posts under Government. I would advocate the practice of instituting special tests for some kinds of administrative posts under Government.

RUDRA, S. K.—SAHAY, Rai Bahadur BHAGVATI—SANYAL, NISIKANTA—SAPRU, The Hon'ble Dr. TEJ Bahadur.

RUDRA, S. K.

Open competitive special tests are the only way to secure the best talent for the country, and this will be advantageous both to the services and to the students. If these tests are of a high order then they will affect the progress of learning favourably in the University.

SAHAY, Rai Bahadur BHAGVATI.

At the present stage of progress and advancement of learning I consider it an unmitigated disadvantage to the public services, to the students and to the progress and advancement of learning that university examinations should be regarded as the qualification for posts under Government. I do advocate the institution of special tests for different kinds of administrative posts provided these tests do not require for admission to these a university training or a degree, and embrace not only the technical subjects required for the particular services for which the tests are instituted, but a general knowledge and culture such as a university training for a degree should give. It may seem superfluous to overburden the special test with a test of the general knowledge and culture, and easier to require a university degree for admission to the special test, and to restrict the special test to the technique of the services. But, really, it is not so; all the trouble has arisen from this view of the matter. It is this view of the matter that has been responsible for the overcrowding of the University with students who resort to it for obtaining employment and who consequently do not obtain the necessary knowledge and culture and, thus, swell the large army of unemployed educated men. I would be prepared to do away with the general knowledge and culture in special tests, as long as special institutions are not started for giving the general knowledge and culture appropriate to each technical pursuit, provided the University training and degree of only a particular kind required for the particular service for which the special test is instituted is accepted; for the special test for admission to the lawyer's work, for example, I would require a B.A. degree in English, psychology, political philosophy, and history; for the test for the teaching profession I would require a B.A. degree in English, psychology, and history. It is the horror of special examinations, and the belief that general culture and training of any sort will make one fit for any special profession that one may have to take to as Hobson's choice, that is responsible for the inefficiency of university culture and training and the inefficiency of the various services and the overcrowding of professions and disappointment to candidates for them.

SANYAL, NISIKANTA.

(*a*) Advantageous.
(*b*) Disadvantageous.
(*c*) Disadvantageous.

The University degree should, by no means, be the sole qualification. It should be coupled with other special tests.

SAPRU, The Hon'ble Dr. TEJ Bahadur.

I am strongly of opinion that it is not advantageous

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning,

that university examinations should be regarded as the qualification for posts under Government. It does not follow to my mind that, because a man has had a brilliant ca'ee"

SAPRU, The Hon'ble Dr. TEJ Bahadur—*contd.*—SARKAR, GOPAL CHANDRA—SARKAR, KALIPADA—SASTRI, Rai RAJENDRA CHANDRA, Bahadur—SATIAR, RADHIKA LAL—SAYIED, ABDULLAH ABU.

at the University, he is necessarily suited to be a good executive or judicial officer. I also think that true progress and advancement of learning must be out of the question so long as a university degree is to be treated as a bridge to a post under Government. I advocate the practice of instituting special tests for different kinds of administrative posts under Government. At the same time, I wish to guard myself against being understood to favour any system of nomination and, unless competitive tests for different kinds of administrative posts under Government are instituted, I should not like to make a departure from the present system. For, as it is, the present system of recruitment to the public services is extremely demoralising both to the people and to Government. It leads to favouritism and other evils connected with it.

SARKAR, GOPAL CHANDRA.

University examinations should not be the only test of qualifications for posts under Government in all branches of administration. Special tests for appointment to certain kinds of administrative posts under Government are necessary, preference being, in all cases, given to those possessing university qualifications to compete for appointments.

SARKAR, KALIPADA.

University examinations should be the main, if not the sole, passports [*vide* my answer to question 9].

Special tests are obviously necessary in some cases, but university degrees or certificates have also their value and cannot be ignored.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur.

Ordinarily speaking, I would regard the possession of a university degree as a sufficient qualification for posts under Government, and would advocate the institution of special tests only in cases where the efficient discharge of the duties of a post involves technical knowledge which cannot be acquired in the course of a period of apprenticeship in the office.

SATIAR, RADHIKA LAL.

(*a*), (*b*), and (*c*) It is indeed advantageous to all parties concerned that university examinations should be regarded as the qualification for posts under Government. The selected candidate might afterwards be put in training to acquire special knowledge for any particular post.

SAYIED, ABDULLAH ABU.

(*a*) University diplomas and certificates should not be a criterion for appointments under Government. It must be admitted that the proper discharge of ministerial work, not to say anything of duties attaching to administrative posts, demands a certain amount of training, and it would be advantageous to the State if some form of special tests could be introduced enabling young men with a predilection for administrative and other work to get into the public services. While no system should stand as a bar to meritorious persons belonging to any class of society I would insist upon some check to be exercised in this respect, and it appears to

SAYIED, ABDULLAH ABU—*contd.*—Scottish Churches College Senatus, Calcutta.

me that a combination of both nomination and competition meets the requirements of the public services. There is a large number of that class whose hereditary profession had been to serve in some public service, and they constitute the backbone of the middle class of Indians. University education is the only type of education at present offered to them and, though many of them may not succeed in taking a gilded degree, they would be valuable assets in the public services. Many of this class are now debarred simply for want of their adapting themselves to get through the B.A. manufacturing machine. Competitors, therefore, from this class mainly should be encouraged to sit for such special tests, and at least 75 per cent of recruits to the public services should be taken from them. The introduction of such special tests for different posts under Government, instituted irrespective of the degree the candidates may possess, will not only relieve the present unmanageable pressure of the number of entrants to the University and aid in properly discharging its important functions, but will also tend to bring into existence various institutions offering training for such special tests. In suggesting this I am strongly of opinion that a proper safeguard should be provided to ensure the maintenance of the accepted principle of communal representation in the public services.

(*b*) To students whose ambition is chiefly to qualify for posts under Government the passing of university examinations for this purpose involves a great waste of energy which they could have more profitably utilised in furthering their main objects. Although a wide range of choice in different subjects is offered to students from the I.A. stage, in practice, they neither consult their individual tastes much, nor choose that which may be useful to them in future life with any definite aim, but flock to the group which it is easier for them to pass and, thereby, raise their own market value in Government employment.

(*c*) In regard to the progress and advancement of learning the present practice of insisting upon certificates of university examinations is decidedly unhealthy. In the existing custom of comparatively early marriage an Indian is faced with the problem of earning very early in his life, and no wonder that in the absence of many openings he is compelled, after taking his degree, irrespective of his own tendency, to try whatever chances he has for entering some public service, starting with his first endeavour to enter the provincial civil service, which forms the ambition of the majority of Indian graduates. Failing in this he tries for other, and less lucrative, departments of the public services, continuing, at the same time, with law and M.A. studies, probably combined, with some private tuition or teachership in a school; in short, making desperate efforts for any more trump-cards that he may secure for advancing his claims for some post under Government. We generally find promising M.Sc.'s and high honours men of their year taken into the public services and, thus, the few promising young men who could have nobly served their Alma Mater in translating into action the motto "advancement of learning" are hopelessly lost.

Scottish Churches College Senatus, Calcutta.

We consider that excessive emphasis has been laid in recent years upon the connection between university posts and appointments under Government or elsewhere. It is probably the case that in all countries only a small percentage of students pursue their studies without the ulterior motive of qualifying for possible appointments, and it seems to us unfair to suggest, as is so frequently done, that Indian students are particular sinners in this respect. At the same time, it is, undoubtedly, true that in this country, more than in other countries, high university qualifications do render men eligible for *immediate* appointment to Government posts. We are of opinion that this is not detrimental to the public services. The close connection is, however, detrimental to the students themselves and to the advancement of learning as it narrows the margin of disinterestedness in study and tempts the student to take up not the subjects in which he is most at home, but those which will enable him to get

Scottish Churches College Senatus, Calcutta—*contd.*—SEAL, Dr. BRAJENDRANATH.

an honours or first-class degree with the smallest expenditure of energy. The institution of special tests is advisable provided that these departmental examinations can be such as to discourage mere cramming, and provided that the element of direct nomination, independently of such tests, is not excluded.

SEAL, Dr. BRAJENDRANATH.

I do not consider that the use of the University degree or certificate as one of the conditions of eligibility to the public services (or other vocation or career for that matter, *e.g.*, in the ranks of medicine, engineering, law) in any way militates against the interests of the public services, or these professions, or of 'pure' studies in the University. The academic Puritan may go and seek his home in the home of lost causes: we can have no use for him in a country which sheltered the 64 arts even in her mediæval universities. It is sufficient that our *general* courses have never been so designed as to meet the special needs of the public services. There are, no doubt, special needs for special departments; the pity is that no vocational training has yet been provided for them, except for medicine, engineering, law, and teaching, within the University; and for police work, settlement, and survey outside. The truth of the matter is that for the grade and kind of *non-intensive* work, which is all that is yet attempted in the executive, legal (judicial), and even medical services in India the general education of the Calcutta University has furnished a sufficiently broad basis, and the subsequent vocational courses, where such exist, as in law and medicine, have proved highly successful. It is well known that in certain departments (*e.g.*, in the judicial, medical, and accounts, our Indian graduates, with vocational training ordinarily (though not in accounts), have proved as successful as any non-Indian agency. But, with our entrance into a new phase of administration, the *progressive* and *intensive culture*, as it may be called, of the resources and capabilities of a people, our exports and veterans in the coming administrative bureaux must be specially trained for what will be highly technical and responsible work and, necessarily, autocratic jurisdiction, without loss, however, of that liberal humanism which is above and beyond all specialisms and above and beyond all techniques, being the specialism and technique of man!

What is really intended by many is that the insistence on an entrance or intermediate certificate for certain clerkships, lower teacherships, and other subordinate work has tended to swell the volume of demand for a university education, and brought in many who enter the University for no other than these vocational ends, and are mostly either unfit or unwilling to pursue any rightly ordered course of university studies. This is, however, begging the question. The unfitness does not appear from the University examinations themselves, nor does it appear that the examinations are lowered to suit their low level. Complaints as to the incapacity of freshmen to follow college lectures are, in great measure, untrue as regards the lectures of those of the Indian teachers who know how to teach, or who have a mind to teach (instead of making their berth a mere stepping-stone to "higher" things), and, so far as they are true, are due to the omission of English history in the matriculation course, which has ruined the understanding of English literature by our freshmen for nearly a decade, but which neither the most extremely nervous among our friends, nor the most candid of our critics, will, at any rate, ascribe to a desire for lowering the level. We cut out Old England's story, but we did not stop there. Driven by the *furor epicus* we plunged *in medias res*. We opened with the epic story of English seamen in the sixteenth century, and then some of us were wroth because the hapless youngster haply took Drake scouring the seas for a sea dragon (*draca*), and hardly knew the Armada from a giant armadillo or some mailed monster of the deep! Another source of stumbling is the easy general paper in arithmetic, algebra, and geometry at the matriculation. In recognition of a broad distinction between two classes of students—the linguistically minded and the mathematically (or the realistically) minded—the new regulations of 1906 provided for higher optional courses in mathematics and classics, in addition to a compulsory minimum in each: a case of incipient or rudimentary and, as it should be at this stage, very limited bifurcation, essentially sound in

SEAL, Dr. BRAJENDRANATH—*contd.*

principle, adapting our examination scheme to the natural distribution of mental aptitudes and interests, and reducing harmful mental pressure, malnutrition of the brain, and the wastage of failure. Unfortunately, the compulsory minimum in mathematics has been fixed too low by the paper setters but, even as it is, it is not inadequate to the needs of studies in the University in English literature, or a classical language, or history. The real trouble began with the maladministration in some of our colleges; they allowed intermediate mathematics and physics to be taken up by those students who had no additional mathematics before. This is the whole truth as to the weak points in our matriculation examination. And the upshot of all this is that that weakness is not in the grain, that at any rate it has nothing to do with the bread-and-butter question, nothing with the depreciation attending an artificially inflated currency, nor with the unlimited issue of credit in the shape of an inconvertible (*i.e.*, uncashed and uncashable) paper or parchment!

I will now take up the question of the intermediate certificate as a qualification for a vocation. This is how the matter stands. The quantity and quality of English writing, speaking, and reading, together with information about things in general that are needed in Bengal to-day for the intelligent pursuit of any vocation in life that can satisfy the *bhadralok* class in Bengal (be it school teaching, office duty, mercantile business, or technical training in any scientific industry), cannot be acquired before the age of nineteen or twenty years, *i.e.*, about the time, when the average Bengali boy finishes the intermediate course; and it is certainly an advantage that we should have an army of intelligent subordinates with a grounding (not grinding) in the essentials of general education. A widespread secondary education (and not merely the old primary or elementary standard), even apart from direct vocational reference, is one of the objects of the new programme of national education in progressive States to-day. What is needed among us is an overhauling of our lower secondary (high school) education, which is about as inept a piece of anachronism as any in the school-world, being as unprogressive as was the teaching in the voluntary schools of England not so many years ago. In fact, it is only the matriculation examination which, in spite of certain blunders in the curriculum, keeps the school teaching from rotting. What we want is not to tag our relatively strong intermediate classes on to the weak and insufficiently equipped high schools and thus to submerge the better in the worse, but to develope high schools independently with such resources as we can command, and, when and where the additional resources in men and money are ample so as to ensure a high standard, to endow and affiliate intermediate colleges as a new wing or extension of the school foundation. But, though I would not merge the intermediate college in the high school, I would consider the former only as a higher school, *i.e.*, as the terminus of a liberal general education from which some will go on to technological or vocational education of the University grade, and others to a university education proper in pure arts or science. And I would have a wide network of intermediate colleges (universities are yet a far cry) in the districts, and even in the interior, as in the sub-divisional towns, for example, so that Calcutta may spread over Bengal, instead of Bengal being cramped and contracted into Calcutta. The one centre first, established firm in its place, and then the multiplication of centres, as in cell development. We are now in that critical stage when we may look for the appearance of the nucleated bodies. The general conditions are favourable; the question is as to the sufficiency, indeed the amplitude, of the nutritive material—I mean resources—in any particular sub-division in the interior.

In fact, it is a fundamental mistake to think that we require a restriction of the volume or quantity of education in the interests of an imaginary quality, or of an academic purity of motive. For one thing, a vocational motive, being a motive to social service and usefulness, is as pure as a bibulous (or ' biblious ') thirst for potations from the pure well of knowledge undefiled. And quantity and quality are both essential, as is the creed and practice of every modern State, and are not mutually incompatible. Far from it. On the contrary, it may be laid down as a proposition in the (scientific) institutes of the new education that, given an *intelligent mixed stock* of people, the greater the diffusion of education the more accelerated will be the rate of intensive educational culture, the higher the educational index, or level, and, what is as important, the greater the chance

SEAL, Dr. BRAJENDRANATH—*contd.*—SEN, BENOY KUMAR.

of catching within the network of the educational organisation the freaks, sports, and *mutants* whose appearance as scouts and pioneers is as necessary to a people's forward march as an army of intelligent followers behind them.

And nothing would be more short-sighted than any measure which would have the effect of unwittingly shutting the doors of university education on the crowd knocking at those doors. Help to create a diversity of occupations in the country by improving the economic organisation, preferably in the direction of co-operative production, co-operative distribution, and co-operative credit, to give a chance against the world which is hammering at our doors; provide for all the three forms of technical education, the primary training for handicraft in workshops (with the aid of the hereditary artisan classes and their customs), the secondary training in polytechnic institutes, and the university training in technological institutes and research institutes, preceded, as is essential in every case, by the corresponding primary, secondary, and university grades of general liberal education, linguistic, real, or mixed and correlated, as the case may be, and then we may contract the present relative proportions (not the absolute dimension or volume) of literary (or legal) education and relieve the glut 'or overproduction' in this particular direction. But there can be no general glut, or overproduction, in education, this moral commodity, no more than this should be possible in material commodity under a wise public economy. And, unless we create such a successful diversion into healthier channels, in shutting the gates of the University, we will be shutting the gates of hope! As matters now stand in this province an increasing proportion of its *bhadralok* youth, its intellectuals, is being brought into the folds of the Alma Mater; under her protecting folds they pass some years of generous enthusiasms and golden hours, tempered by steady, hard work (this very cram or grind is a ballast), and then they come out as graduates or under graduates fit to be staid citizens and toiling fathers of families whom no disillusion can tempt to go astray. Doubtless, there are exceptions, the neuropaths, sometimes with a taint of insanity (or criminality), who form a favourable *nidus* for the culture of certain anti-social microbes in times of seething or fermenting unrest, such as is apt to spot the weak points in the nerves of individuals as of peoples; but the majority is saved from damp-rot and dryrot (of soul and body), as well as from maniacal fury, by the golden quinquennium of their academy. But if any considerable proportion of the youth of the literate *bhadralok* classes is kept away from the fairy god mother who waves the wand of hope and ambition before their eyes and, at the same time, can find no healthy interests and occupations, no openings in life, they will feel doubly beggared, and drifting about in the gloom as in a *Dantean Inferno*, in idle despair, a prey to legion and to madness, they will resort to the criminal by ways of life, and will destroy healthy social tissues, like a malignant or leprous ulcer, on the body politic.

SEN, BENOY KUMAR.

I hold that the existing practice of accepting university degrees as a qualification for Government service is advantageous to

(*a*) the public services, and
(*b*) to the generality of students,

but disadvantageous to

(*c*) the progress and advancement of true learning and to those few students who will follow the pursuit of knowledge for its own sake. Hence, I am entirely in sympathy with the suggestion of instituting special tests for different kinds of administrative posts under Government, but modified by a previous nomination as a safeguard for securing men of the right sort.

But it must, at the same time, be admitted that this existing connection between university degrees and Government posts has greatly, though indirectly, furthered the cause of education in Bengal by giving it a greater extension. And it is not at all desirable that this extension of surface should be narrowed down. As a remedy to that I suggest that the competitive examinations for the higher services should be very nearly on the same

SEN, BENOY KUMAR—*contd.*—SEN, BIMALANANDA—SEN, BIPINBEHARI—SEN, Rai BOIKUNT NATH, Bahadur.

standard as the B. A. examination of the University so that all who seek Government employment will still come to the University for general education. It must be borne in mind that for a long time to come the universities in this country will continue to be the only institutions capable of imparting any general education to the people, the standards of the schools being too low. Hence, it is not desirable to restrict the extension of general education in the country by adopting any policy which should seek to divert the majority of the students away from the University. My idea is that the University will welcome all who come there for general education (*i.e.*, up to the B.A. pass standard), but will select only very few for entering the inner temple, (*i.e.*, the M.A. classes). [It is presumed that only those who appear in the B.A. (honours) examination shall be allowed to join the M.A. classes.]

SEN, BIMALANANDA.

It is difficult to give a definite answer to such a broad question. For different kinds of posts under Government different kinds of special knowledge are required, and to secure efficiency of administration the practice of instituting special tests cannot but be advocated; only one standard, *e.g.*, university qualification, should not be followed in every case. Liberal education broadens one's views and makes one fit for doing good work in different capacities; besides, university life itself is an instrument of liberal education. If, however, a man acquires this sort of education by means other than undergoing university examinations I do not see why he should not be given posts under Government if he passes the special test and is found otherwise fit.

Mere university qualification without a special test may be detrimental to the public service, but it may be an incentive to university education. But, in cases where there is no natural aptitude, this sort of excessive brain-work may be injurious both to the students and to the cause of the advancement of learning.

SEN, BIPINBEHARI.

As the University practically offers the only door through which the youths of this province have to pass to have some form of high education in the absence of any rival institutions like those in England and other progressive countries of the West it is desirable that some university test should be imposed upon all desirous of entering the public services of this country before they are admitted to open competitive examinations. As the Indian home and its environment are not yet very intellectual, and as opportunities for private studies are few, a course of university training gives a sort of intellectual discipline to the Indian youth and shapes his character and habits to enable him to bear the strain of sustained intellectual work in trying circumstances.

SEN, Rai BOIKUNT NATH, Bahadur.

It is certainly advantageous to

(*a*) the public services,
(*b*) the students,
(*c*) the progress and advancement of learning,

that the university examinations should be regarded as a qualification for posts under Government; but I beg to suggest that special tests by competitive examinations may be adopted with greater advantage with regard to appointments in the following:—

(i) Police.
(ii) Forest.
(iii) Opium.
(iv) Accounts departments.
(v) Provincial executive service.

SEN, Rai BOIKUNT NATH, Bahadur—*contd.*—SEN, PRAN HARI—SEN, RAJ MOHAN—SEN, Dr. S. K.—SEN, Rai SATIS CHANDRA, Bahadur.

The educational service is now composed of the imperial service and provincial service. I venture to submit that justice is not done in many cases, merit is not duly appreciated or rewarded, and, owing to great heartburning from a consciousness of injustice and undue and undesirable preference, members get disheartened and gradual deterioration in the imparting of education is the result. A great deal of discontent also comes into existence amongst the student community, materially affecting discipline and good behaviour.

In the Education Department there ought to be a special service examination, competition being the supreme test.

SEN, PRAN HARI.

Yes; I, for one, consider it advantageous to the public services, to the students, and to the progress and advancement of learning that university examinations should be regarded as a qualification for posts under Government. There may be administrative posts under Government for which special tests might be necessary.

SEN, RAJ MOHAN.

Except in very special cases the success at university examinations should be regarded as the first qualification for administrative posts under Government. The University examinations show not only proficiency in the special subjects of study, but also general intellectual ability; and, regarding the latter, I think no department under Government can devise a more reliable test. There are, no doubt, other qualifications which are desirable in public servants; but those qualification can hardly be tested except by work actually done. It is to be remembered also that a man of high intellectual ability should not take a long time to learn duties of any particular kind. So I think the result of the University examinations should be the first thing to be considered when men are to be selected by Government to carry on the administration of the country. If this be done students will be benefited because they will not be under the necessity of taking the trouble for, and of spending the time in, undergoing separate examinations. This will also help the progress and advancement of learning by inducing a large number of young men to come to the University for education. Additional tests, however, may be instituted when they are found necessary for very special reasons.

SEN, Dr. S. K.

Government should have special tests for different kinds of administrative posts. University examinations should not be regarded as a primary qualification for posts under Government.

SEN, Rai SATIS CHANDRA, Bahadur.

University examination should not be regarded as the qualification for posts under Government. But, university examination, such as the intermediate examination, which would ensure that the candidate is otherwise generally fit, though he is not qualified for the special post or service, should be made the minimum which should be required from every candidate. For the lower grade services the matriculation examination may be the minimum prescribed. Some sort of university training is necessary. I would advocate the practice of instituting special tests for different kinds of administrative posts under Government provided, as I have already stated, the candidate goes through some training in the University, or passes the matriculation examination held by the University. In this connection, I may add that the abolition of competitive tests has been derogatory to the public services and galling to the self-respect

SEN, Rai SATIS CHANDRA, Bahadur—*contd.*—SEN, SATISH CHANDRA—SEN, SURYA KUMAR—SEN GUPTA, Dr. NARES CHANDRA—SEN GUPTA, SURENDRA MOHAN.—Serampore College, Serampore.

of young men seeking administrative posts under Government. It has been creating a good deal of dissatisfaction in the minds of able and meritorious young men.

SEN, SATISH CHANDRA.

I hold it to be advantageous

(*a*) to the public services,
(*b*) to the students,
(*c*) to the progress and advancement of learning,

to regard university examinations as the standard of education for Government posts. In addition, special tests for different services should be instituted.

SEN, SURYA KUMAR.

Special tests for different kinds of administrative posts under Government are not necessary. Success at the University examinations may be taken to be the most successful test for such purposes.

SEN GUPTA, Dr. NARES CHANDRA.

On the whole, I do not consider it advantageous to have university examinations regarded as qualifications for Government posts. It leads to the overcrowding of the University by students who have no interest in learning, and who are best out of it. This is very detrimental to the advancement of learning. I am aware of the advantage of a large number of men passing through the discipline of a university course, but on the whole, I think that, in the present circumstances, the disadvantages outweigh the advantages.

Special examinations for the public services, with special institutions training students for those examinations, would, on the whole, be more advantageous.

SEN GUPTA, SURENDRA MOHAN.

University examinations should not be regarded as the necessary, and sole, qualification for posts under Government. If university examination be regarded as such then it will not be advantageous to the progress and advancement of learning; colleges will be crowded with students who are eager to pass, but not to learn, hence, the standard of instruction would be lowered. No doubt, even if special examinations be instituted for Government service, university men would be attracted and secure posts in them by passing these examinations. Still, those who are not eager for learning would not go to the University, but would appear in those examinations by private study. Special tests by competitive examination should be instituted for different kinds of posts under Government. That would be to the interest of the public services as, in that case, departments would be able to secure the services of those men who are quite competent for those posts but have got no University qualifications. It would benefit the candidate also as, even if he had not been very successful in his university career, he would have a chance of securing a good job under Government.

Serampore College, Serampore.

We have already dealt to some extent with this subject in our answers to previous questions. Our answer generally is in the affirmative, though we think that a successful academic career may well be one of the factors taken into account in making appointments to certain types of administrative posts.

SHARP, The Hon'ble Mr. H.

(a) I consider the utilisation of university examinations as a test for Government employ to be disadvantageous. For :—

(i) Some services suffer through the fact that persons who have so qualified themselves have not necessarily had the best kind of training for the post, *e.g.*, a clerk should have some practice in précis writing, neatness of handwriting, docketing, typewriting, etc. But the matriculation or intermediate examinations do not give him this training. Secondly, an examination is no test of character, save of a certain endurance in getting up the subjects.

(ii) The student comes to regard his education merely as an investment and the completion of the course merely as a door to employment.

(iii) The attitude fostered by the present practice tends to keep education in a groove and to discourage progress beyond a certain stage. Hence, it is disadvantageous to the advancement of learning.

(*b*) and (*c*) It is true that, whatever practicable arrangement be adopted, the utilitarian aspect will remain; nor is this phenomenon by any means confined to India. But it is as well to push that aspect as far as possible into the background and to emphasise the fact that the University exists for purposes of liberal education even though it is also a place of preparation for professional life.

I would, therefore, advocate special tests for different kinds of administrative work. Such a test would be not merely by written papers, but should involve an investigation of a candidate's record and antecedents and an oral examination. The possession of some standard of attainment at school or college (*e.g.*, for certain branches the possession of a degree) would also form a necessary qualification for admission. The actual subjects of examination would be few and should have some bearing on the work which the candidate will subsequently have to perform. Some of the examinations might be conducted by a central board; but, generally, there should be boards formed under the local Governments, or under groups of them. Such boards should contain professors connected with the various universities, and local Governments might well arrange for some interchange of examiners.

The examination which admits to the Indian Finance Department has already been cited as an example. I understand that it has proved advantageous to the service. Candidates are selected by nomination on the score of antecedents, etc., and are required to produce a statement showing, among other things, their mathematical attainment. The examination is in three subjects only—writing and composition and two optionals from a fairly wide list. I would make it a rule that, in regarding a candidate's antecedents, the views of his professors and of the academic body of his university should be carefully considered.

If it is thought that the addition of such an examination will be burdensome Government might institute special qualifying degrees in the University, appointing its own examiners, as is done in some European countries. But I consider that it would be better entirely to separate this test from the degree examinations and to make it an additional test.

It would be well if other public bodies utilised these examinations as tests for administrative or professional work.

SHASTRI, PASHUPATINATH.

University examinations may be regarded as the qualification for posts under Government if the examinations have been such as guarantee the amount of knowledge and ability necessary for the posts. If a gentleman who has passed the M.A. examination in mathematics seeks a post in the Financial Department he need not be bothered over again with a special test. Otherwise, there must be special tests.

SHASTRI, Dr. PRABHU DUTT—SHORE, Rev. T. E. T.—SINGH, PRAKAS CHANDRA—SINHA, KUMAR MANINDRA CHANDRA—SINHA, PANCHANAN—SINHA, UPENDRA NARAYAN.

SHASTRI, Dr. PRABHU DUTT.

If the system of examination is reformed university examinations might, with advantage, be regarded as one of the important qualifications for entering the higher grades of Government service. Under the existing system, the usual practice is to regard university degrees as the *sine qua non* of admission to the public services; this can hardly be justified. The graduate is not necessarily the most efficient candidate available to fill up any vacancy in the public services. The mere possession of a university degree should not be a passport to Government service. Special tests to suit the needs of different departments may be instituted.

SHORE, Rev. T. E. T.

(*a*) The present custom of regarding university examinations as qualifying for posts under Government is disadvantageous in the highest degree to students and to the progress and advancement of learning. I should certainly advocate the substitution of special qualifying tests for such posts.

SINGH, PRAKAS CHANDRA.

Under the present circumstances, I hold it to be advantageous for the progress and advancement of learning, and also for the public services, that university examinations should be regarded as a qualification for a post under Government. But when posts are thrown open to competition, and a high degree of proficiency is required to compete successfully, I would not require a university degree to be an absolute necessity for a post under Government for, in that case, high proficiency in learning would have to be acquired, whether through the University or otherwise, and neither the public services nor the progress in learning would suffer.

SINHA, KUMAR MANINDRA CHANDRA.

Yes; university qualifications should be no passport to Government service. Special tests could be introduced therefor.

SINHA, PANCHANAN.

(*a*), (*b*) and (*c*) I am strongly of opinion that, in the interests of the public services, of the students, and of learning university examinations should never be regarded as qualifications for administrative posts under Government. Special competitive tests should be instituted for all such posts.

SINHA, UPENDRA NARAYAN.

Graduation in arts and science should be the minimum qualification for entering different kinds of administrative posts under Government. There should also be special tests for different kinds of administrative posts. It will, however, not be advantageous to the progress and advancement of learning if university examination be made the only test for entering the executive service.

SIRCAR, The Hon'ble Sir NILRATAN—SMITH, W. OWSTON—SÜDMERSEN, F. W.—SUHRAWARDY, HASSAN—SUHRAWARDY, Z. R. ZAHID.

SIRCAR, The Hon'ble Sir NILRATAN.

Yes; the system of regarding university tests as qualifications for Government service would be advantageous to all concerned.

Special tests for some kinds of administrative posts may have to be instituted, *e.g.*, for the post of accountants.

SMITH, W. OWSTON.

I am rather in doubt on these points. I think it would be advantageous for Government to appoint men trained at Camford. But perhaps it would not be good for students to know that their studies were likely to lead to Government posts. I think that the recommendation of college principals should carry much weight with Government and should be more important than examinations.

SÜDMERSEN, F. W.

If education is to make a serious advance the present method of making university examinations practically the sole passport to Government service should be abolished. The possession of a degree should be essential for a teacher and, obviously, also for those who desire to enter the distinctly learned professions of law, medicine, and the higher branches of engineering.

But to demand of men whose aim is a Government appointment that they should obtain a degree serves only to crowd the lecture-halls with men of but mediocre abilities. The result is a gradual raising of the academic demand, until a graduate in honours finds but a petty clerkship, as an outcome of much expenditure of time and money. Nor are such men usually qualified for the posts they secure.

If a separate range of examinations, such as those for the higher and lower clerkships in the English civil service, were instituted, with nominations where especially called for, there is but little reason to doubt that a definite step forward will have been taken and one which will be of great benefit to the services, to students, and to learning alike.

The obvious difficulty in the way is the absence of any other institution to meet requirements of tuition for these examinations. Some of the schools, or of the intermediate colleges, suggested above, might meet the tuitional requirements for lower clerkships—the colleges and universities will, no doubt, be able to provide courses of instruction to those whose ambition tends to the higher services. The rigidity of the present prescribed courses will require modification, but the problem is not one that will present any great difficulty.

SUHRAWARDY, HASSAN.

There should be a special test for entering into the lower grades of the public services; for the higher grades the passing of the university examination must remain the test.

SUHRAWARDY, Z. R. ZAHID.

(*a*), (*b*) and (*c*) Yes; I would advocate the practice referred to in the second part of the question.

THOMSON, Dr. DAVID—TIPPLE, E. F.

THOMSON, Dr. DAVID.

I consider that the balance of advantage is in favour of the institution of special tests for the different kinds of administrative posts under Government.

TIPPLE, E. F.

In India the time seems ripe for the formation of a body corresponding to the civil service commissioners at Home, whose duty it would be to conduct examinations for the Indian public services in all those cases where it may be decided to obtain recruits by examination in India. Whether such examinations should be for open competition, or restricted in any way by nomination, is a matter needing special consideration. The main advantage to be derived from the institution of such a body in India would be that purely educational questions would be freed from complications connected with the recruitment of the public services which, at the present time, frequently tend to cloud the real issue.

This has been particularly noticeable with reference to the Thomason College and the separation of the Public Works Department into the so-called imperial and provincial branches; the status of the college was, thereby, necessarily lowered, and residents in India were compelled to regard the worst engineering college in England as preferable to any that could possibly be provided in India.

(*a*), (*b*) and (*c*) The answers must depend upon the system adopted for recruitment and for the conduct of any specified public services examinations in India.

(*a*) It is important that, wherever specialised professional services are concerned, the professional qualifications of candidates should be the first desideratum. At the present time, the development of India's resources rests largely in the hands of those branches of her public services which are of a definitely professional type, *e.g.*, engineering, agriculture, medicine, forestry, and education. Probably the best method of recruiting such branches would be by means of a board of selection dealing with applications received from candidates possessing specified professional qualifications as is now done in the case of recruitment for the Indian Public Works Department in England.

So far as non-professional services are concerned the test of general educational attainment is probably satisfactory, and is already followed in the case of the Indian Finance Department. For this department a special annual examination is held open to candidates on a general nominated list.

In India it would probably be necessary to make some provision to prevent the flooding of the public services with candidates from one class of the inhabitants, *e.g.*, Hindus, as distinct from Muhammadans, or, again, special castes among Hindus. Such points would require settlement by Government, in consultation with a representative body of public services commissioners.

(*b*) This point appears to be included under (*c*) since what is advantageous for the progress and advancement of learning must surely be the same for genuine students.

(*c*) If the examinations of the universities and professional colleges be quite distinct from the examinations for Government appointments it will make for the improvement of the intellectual atmosphere of such institutions. If such appointments are decided on an outside examination, even supposing that candidates are restricted to university graduates, or in the case of lower

TIPPLE, E. F.—*contd.*—TURNER, F. C.—VACHASPATI, SITI KANTHA—VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA—VREDENBURG, E. (in consultation with Cotter, G. DEP.)

appointments to successful school-leaving certificate candidates, the present premium on cramming for the school-leaving certificate or degree examinations will be reduced since candidates who merely desire an appointment will be obliged to retain their knowledge for a subsequent independent test. The extent to which the school or college work has been genuinely assimilated will thus become an important factor for success. Moreover, professional examinations will become merely standardising examinations for the classification of candidates who have completed a course of instruction; they will cease to be competitive examinations for a few special prizes. This applies particularly to institutions like Roorkee.

TURNER, F. C.

I regard the present practice of making the University examinations the qualification for posts under Government as disadvantageous to the students and to the progress and advancement of learning, but I am not sure that the recruitment for the public services is not more satisfactory under the existing system than it would be under a system of special examination attended, as such a system would be, by the constitution of cramming establishments.

VACHASPATI, SITI KANTHA.

University examinations should be regarded as one of the necessary qualifications for posts under Government. Special tests may be dispensed with by providing a probation period for candidates in all departments. In the Education Department university examination should be the only test. The system of undergoing the probational period and passing the departmental examinations makes it unnecessary to introduce any special tests.

VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

Special tests may be introduced, but university examination should be one of the necessary qualifications; special tests may be dispensed with in favour of students of high university distinctions. In the Education Department university examination should be the only test (with good physique and interest in sports, at any rate for schools).

VREDENBURG, E. (in consultation with Cotter, G. DEP.)

The University examination need not be the final test, but candidates for the final test should possess a university degree.

WAHEED, Shams-ul-Ulama ABU NASR—WALKER, Dr. GILBERT T.—WATHEN, G. A.—WEBB, The Hon'ble Mr. C. M.

WAHEED, Shams-ul-Ulama ABU NASR.

(*a*), (*b*) and (*c*) The reverse.

I would advocate the system of instituting special tests for different kinds of posts under Government.

WALKER, Dr. GILBERT T.

As already indicated I regard the results of the existing examinations as so unsatisfactory that, in my view, Government should decide that the tests for filling its own posts should be real, and that the posts should be given to men who understand what they profess to have learned, not to those who have merely memorised. I think that an effective examination of this kind would have the most far-reaching results and would very greatly assist those who try to raise the standard of Indian teaching. In England I have heard of no complaints against the system of holding examinations for Government appointments. I regard all examinations as necessary evils and, in general, should be opposed to adding to their number. But there is so little hope of reaching satisfactory conditions in India without drastic steps that I would like to see it tried. I consider that it would be advantageous to the public services, and to learning. Students might find it inconvenient, but it would promote their ultimate good.

There must be a certain number of different tests for different kinds of posts. For the few posts for Indian graduates that we have in the Meteorological Department I make appointments on information obtained directly from the professors of physics, or heads of colleges, and I think the system works very well. This method should, in all cases, be used to supplement the results of examinations, whether conducted by Government or a university.

WATHEN, G.A.

I am strongly opposed to university examinations being regarded as the qualification for posts under Government. To abolish this arrangement would strike at the root of the evil. It is obvious Government must have some guarantee of a certain educational standard in the public services. This is, I imagine, best gained by a school final in which the test is not reduced to a written examination by outside examiners.

Each department of Government should have a special test of admission where common sense, handwriting, and a practical knowledge of English could be assessed more accurately than in the present matriculation examination.

WEBB, The Hon'ble Mr. C. M.

I think it highly advantageous to the public services, to the students, and to the progress and advancement of learning that university examinations should be regarded as the qualification for posts under Government. Despite many defects, and much room for improvement in methods of examination, the system of examination is the best method yet devised for securing the highest level of intelligence for appointments in the public services. Examination should not be the sole test, but it is an essential test. University examinations should be of the highest type of examination and, consequently, the most effective test of the quality of students who pass the tests.

As regards the benefit to students it is not to be expected that many of them will have a passion for learning for its own sake at an early age. The appointments resulting from the possession of a university degree afford a necessary stimulus to enable most students to overcome their preliminary inertia and foster a desire to continue their studies for their own sake.

WEBB, The Hon'ble Mr. C. M.—*contd.*—WEST, M. P.—WILLIAMS, Rev. GARFIELD—WILLIAMS, L. F. RUSHBROOK.

As regards the effect on the progress and advancement of learning I am of the opinion that learning progresses most rapidly when it is in close contact with the main currents of national life. The association of the University with Government in the selection of officials is one of the most effective means of ensuring this contact.

WEST, M. P.

The effect of a public services examination would be to divert students from the University altogether. Coaching classes, already an evil, would be opened. They are quite uncontrolled; their sanitary conditions are appalling. The teaching is the worst form of cram. An extension of this system can hardly be desired.

The only way to prevent the coaching class would be to adapt the examination to the University course, or the University course to the examination. If that is done I do not see the need for a separate examination. These aspects hardly concern me as I deal only with schools. The effect on the schools would be very pernicious. There would be a great probability of the schools adjusting themselves to prepare for the coaching class. It is quite certain that, whatever subjects were included in the public services examination, they would have a monopoly of attention in the schools.

My greatest objection is one of principle, *viz.*, that the public services examination gives no credit for a good school and a good college. The Eton-Oxford man stands on a *par* with the Burlington House*—Wren's man—whereas a selection on the basis of a school and college career gives credit not merely to the fact that the man has been subject to the better influence, but also to the superior value and greater responsibility of the tutors' recommendation.

These are not the chief considerations; the chief point is the effect in the schools. If Eton is no recommendation why go to Eton? why have an Eton at all? There are no good schools in Bengal because no one attaches any value to quality. Boys do not boast with pride of having been at the Hindu School. Employers do not ask what school the boy was at. The school football colours in Bengal are changed every year, when the old shirts are thrown away.

WILLIAMS, Rev. GARFIELD.

It is a very mild way of putting it to say that it is "not advantageous" either to:—

(*a*) the public services,
(*b*) the student,
(*c*) the progressive advancement of learning.

Yes; I should advocate the practice of instituting special tests for different kinds of administrative posts under Government. And I should make a special type of school education give a general preparation for such "special tests." And I should separate this general type of school education from that type which prepares boys for a matriculation examination.

WILLIAMS, L. F. RUSHBROOK.

The association of employment in the public services with success in examinations conducted by purely educational bodies, which may be traced ultimately to the policy of Sir Henry Hardinge, has operated almost as an unmixed evil. At first, no doubt, it fulfilled the hopes of its designers in assisting the spread of western education and contributing to the multiplication of institutions where such education was imparted. But, since that time, its effects have been truly sinister. So far as the public services are

* University Correspondence College, Cambridge.

concerned these effects have been less marked, but it is noticeable that the result has been the exclusion from those services of many youths admirably qualified by birth, standing, and force of character to perform all the duties entailed by official employment. A premium has been placed upon intellect of a particular type by making success in university examinations a passport to Government service; and this type of intellect is not in any way essential to the performance of public functions; indeed, there is some reason for thinking that its possession by a public officer is, for many services, a purely negative qualification.

On university students the effect has been lamentable. They have come to regard a university degree as a preliminary to Government service, not as the hall-mark of a university career. The examination has become the goal of all their endeavours: the preparation process has been prostituted. They are dominated throughout their university life by their conception of a degree as something with a hard-cash value; and the conception of university training, as a means to the fuller development of individuality, and to the achievement of a loftier moral and intellectual stature, makes no appeal to them.

The whole state of the university system of India, as it exists to day, is a striking commentary upon the results of associating Government posts with university degrees. One of the first requisites to a healthy system of higher education is the imposition by Government of its own tests for admission to its own services. The universities have been too long crushed under the burden of a system which diverts their energies from the pursuit of sound learning to the production of candidates for Government clerkships. They are crowded with fourth and fifth-rate students who are quite unfit to profit by a university career, but who are driven to enter upon it as the simplest way of qualifying for Government service. The size of the student population of Indian universities, overwhelming as it is, results directly from the swarm of youths seeking a career, who have no taste for learning, and no capacity to profit by such learning as they receive. They act as a deadweight upon the efforts of the teaching staff and upon the progress of the minority who are really fitted for a university career. If the intellectual level of these embryo Government servants were high the effect upon the universities would not have been so sinister. But the majority of them have neither taste for learning, nor interest in its pursuit, and are agreed to look upon the University as a tiresome preliminary avenue leading only to their conception of the *summum bonum*—Government service.

WORDSWORTH, The Hon'ble W. C.

If examinations are such as to test intellect, thought, reasoning, and alertness of mind, I hold it to be advantageous to all. The multiplication of examinations is to be deprecated, and in Bengal too much value is already ascribed to them. But, as matters are, it is doubtful whether examination success is satisfactory evidence of fitness for high and responsible State service. I have, on two or three occasions, been a member of a university committee that selects candidates for nomination to the provincial executive service. The candidates are invariably men of the highest academic distinction, but their level of thought, and their equipment, in matters outside their book work is generally deplorable. For this reason, I would advocate something like the civil service commission for the examination of candidates for the higher services after a preliminary selection. I would have one test for all services, except those which require technical qualifications at the outset.

For humbler posts, *e.g.*, subordinate clerkships, I do not consider universitytraining to be necessary. Much of the overcrowding in our colleges comes about becausethey have to accommodate students who in other countries would be satisfactorily equipped for the work they contemplate with a school education, perhaps concentrated by a short subsequent course at some such institution as Clark's College. This lowers the work and tone of the colleges and the University.

ZACHARIAH, K.

As things are, the University is a sort of vestibule to Government service; and students enter it not for education or culture or any other rather ideal and intangible object, but to obtain such a degree as will enable them to secure a post in Government service. A degree is the life-belt which keeps one from sinking; and, accordingly, it becomes a first principle of university policy to be generous in granting degrees. An excellent thing provided other aims are equally achieved. But the fact that so much depends on a degree produces several results which are altogether injurious. It leads to a good deal of overwork, strain, and physical breakdown. It produces impatience with, and the practical exclusion of, anything not directly useful for the examination; that is *during the most generous and hopeful part of his life the student is condemned to the narrowest interests.* The University, unlike Aristotle's 'polis', makes for bare existence, not for the good life [see answer to questions 17 and 18]. The student, again, working with an ulterior object in view, does not usually get interested in, or enthusiastic about, his subject. His "education" is complete when he has got a degree and there is no further use for books.

For these reasons, I conclude that the existing conditions need a change; and recommend special tests for Government appointments. This already exists, to some extent, *e.g.*, in the Finance Department examination. There are at least two distinct advantages; first, Government posts will no longer be the direct prize of university examinations, and it may become possible to love learning for its own sake; and secondly, the departmental examinations can be so conducted as to offer a more adequate test to select the special sort of men desired than a general university examination can be. University examinations and education will no longer be made totally subservient to mercenary ends; and Government will get better men for its work.

ORAL EVIDENCE.

CLARKE, G.R.

1st March, 1918.

Post office subordinate staff.—There are 4,000 subordinate appointments in Bengal and Assam for clerks and telegraphists. Last year there were 154 vacancies for subordinates in Bengal and Assam. The recruitment of these men is very haphazard. Many candidates who are not matriculates are recruited. There is a thoroughly bad system of unpaid and paid probationers who eventually become permanent clerks. The witness thought this system ungenerous to the employers and unfair to the work of the post office. The university graduate is not suitable for these subordinate posts. He is too old in the first place; and his promotion will probably be blocked so that he may never get more than Rs60. The B.A., again, has been trained on lines unsuitable for the work; and he is often weak in handwriting and colloquial English. Graduates are sometimes appointed and receive higher initial salaries than others. The salaries ordinarily run from Rs20 (Rs40 in Calcutta) to Rs120.

2. *Improved methods of recruitment.*—The witness was dissatisfied with the system explained above. He said that an examination is needed in India, at about the age of eighteen or nineteen, which will include English, arithmetic, geography and mathematics. Training in *precis*-writing would be valuable. The witness said that the handwriting, spelling, and punctuation of subordinates were very weak; and their knowledge of geography was most indifferent. All these subjects should be tested in the proposed examination. The examination, however, should not be competitive, and should be quite distinct from any university examination. The post office requires qualifications from its subordinates other than those that can be tested by an examination. Moreover, most of the junior men desire to work near their homes. The post office, however, might be debarred from employing boys who had not passed this examination. Recruits should not be admitted to the post office after they have reached the age of twenty.

CLARKE, G. R.—*contd.*—HIGHET, Sir ROBERT and HINDLEY, C. D. M.

3. *Improved remuneration.*—The witness admitted that boys of eighteen or nineteen who had passed such an examination, and had received a good and complete school education, should receive a higher scale of pay than now obtains. He suggested that the initial salary should be R40. He thought that higher salaries and better recruits would prove economical in the long run.

4. *Higher posts.*—There are in Bengal and Assam 22 superintendents' divisions. The pay of a superintendent is R200—R600; that of a deputy postmaster general is R800—R1,400; and there are four higher posts open to officers of the department on R1,750—R2,500. There are now two officers drawing R2,500 who started on R50. The superintendents are almost invariably graduates. The witness said that the post office had been able to recruit most satisfactory and efficient officers.

5. *Methods of recruitment.*—Superintendents of post offices are recruited in two ways:—

(*i*) By direct appointment as probationary superintendent on R200 a month.

(*ii*) By promotion of deserving officials who are already in the department.

There is, on an average, one vacancy a year for superintendents in the Bengal and Assam circle.

Superintendents are appointed entirely by selection, and a competitive examination is not considered advisable as personal qualifications are of very great importance in the post office. The trouble at present is that selected candidates for appointment as probationary superintendents cannot always be given appointments before they reach the age of twenty-five, and they are inclined to hang about waiting for a vacancy until they are over age for Government service.

HIGHET, Sir ROBERT, and HINDLEY, C. D. M.

19th February, 1918.

Recruitment of staff, traffic, audit, and stores departments.—There are about 2,500 clerks in these departments. Very few Anglo-Indians hold these posts. Admission is based on an informal test. The posts carry an initial salary of R20 to R25 a month. Some of these men have risen to posts carrying salaries of R400 and, in a few cases, even of R600. Very few graduates apply for the subordinate posts. The qualifications vary from failed entrance to failed B.A.'s.

The witnesses said that specialised school training was not required for these departments. The life at school should be spent by boys in acquiring a good general education. A sound knowledge of English, but not of English literature, was required. Geography, again, is a useful subject.

Mr. Hindley was of opinion that schools were perhaps deficient in the formation of character. Candidates are somewhat lacking in a sense of responsibility. Those, however, who showed some initiative, and a willingness to act for themselves, obtained speedy promotion. Sir Robert Highet exemplified this statement by showing that numbers of men who were about 40 years of age or thereabouts were obtaining salaries of R400.

The supervising establishment has hitherto been mainly recruited from England, and also by promotion from the subordinate ranks. A good general education is required by candidates. A few years ago a field of recruitment was opened to graduates from Indian universities. Successful candidates go through a period of probation of two years. They start on salaries of R100 rising to R150 in the two years. They are required during this time to obtain a thorough grounding of the work they will be expected later to supervise. After the satisfactory completion of the probationary period they begin on R250 and many rise to the highest posts in the departments.

2. *Civil engineering department.*—An entrance examination is held once a year for the recruitment of the subordinate staff. The chief engineer makes the final selections. The candidates are usually between the ages of sixteen and eighteen. The apprentice course is of three years, except in the block-signalling department, where it is one of four years. Salaries range from R30 to R75 during this term of apprenticeship

HIGHET, Sir ROBERT, AND HINDLEY, C. D. M.—*contd.*

Boys find their own accommodation. The senior inspectors give practical training, and the engineers impart theoretical instruction of an elementary nature. After the satisfactory completion of the probationary service candidates are placed on the permanent establishment as permanent-way inspectors, signal inspectors, or inspectors of works, commencing on R100 per mensem. The salaries sometimes reach R400 or R500; and there are chances of promotion to higher posts. Pratically all the permanent-way inspectors are Europeans or East Indians, but Indians hold 60 per cent of the appointments as inspectors of works. The educated Indians find the work of plate-laying somewhat uncongenial. Efforts are made to train boys in places where they can obtain some technical education. Recruitment from England has practically ceased.

Recruitment for the higher engineering posts is usually from England—the requirements being a degree at some recognised engineering college, and some practical training. In the last few years a number of Indians possessing these qualifications has been appointed. The initial salary is R350, and promotion may be to any post in the department. Sanction is required from the English authorities on the railway when appointments are made in this country. Training on an English railway is regarded as an important qualification. The English-trained men have a greater sense of responsibility, and have generally had to pay for their training. There is no reason why graduates of an Indian university should not be appointed provided that they have gone through practical training for a suitable period.

3. *Mechanical engineering department—locomotive, carriage and wagon, and electrical.*—There are some 10,000 workmen in the locomotive department in the works at Jamalpur and 5,000 in the carriage and wagon shops at Lillooah. Recruitment to the subordinate supervising posts is by an annual examination. Successful candidates must attend night technical schools at Jamalpur. Drawing is a subject of the examination, but this subject is not ordinarily taught in Indian schools. This omission should be rectified as the subject is of great importance. The apprenticeship is for a term of five years, during which period the apprentice receives a salary, rising from R30 to R50 per mensem. After apprenticeship the initial salary is R100. There is a possibility of promotion to the posts of foremen of the shops, which carry salaries of R500 and R600.

Recruitment for the higher grades is entirely from England. Sir Robert Highet had suggested a scheme for the training of Indian graduates in science or engineering by eighteen months' probation in India followed by a three years' training in England. The chief object of the probationary training in India was to see whether the candidate was generally and physically suitable. The board of directors in London had fully approved of this scheme some time ago, but the Railway Board had not yet been able to come to a decision. The witness would be glad to see the acceptance of some such scheme. An allowance would be given during the period of training. Training in England is almost essential as it is very necessary for the Indian railways to keep in touch with the developments of the Home lines.

4. *Connection between Sibpur and railway apprentices.*—A suggestion has been made that after four years' training in the shops selected apprentices should go for a two years' course to Sibpur. The idea is to improve the foreman class. Sir Robert Highet approved the scheme in that it would give an opportunity to good boys to fit themselves for promotion.

The development of the mechanical and electrical training at Sibpur should be encouraged.

5. *Separation of higher from lower work at Sibpur.*—Mr. Hindley thought it advisable to separate the higher from the lower training at Sibpur. Sir Robert Highet thought it would be better to substitute the shop training with night schools for the lower grade training at Sibpur. He saw no difficulty in such an application of the "Sandwich" system. It should be possible for a boy undergoing his apprenticeship to obtain sufficient time for technical instruction during the day-time without the necessity of working at night. What is needed is to have boys better educated before they come to the practical work, and also to give them better education during the time they are doing their practical work.

PAYNE, The Hon'ble Mr. C. F.

18th February 1918.

The Bengali is ready to undertake practical work. In the Calcutta Corporation some 120 Bengali engineers are employed in charge of engineering and drainage works, water-supply, pipe-laying, etc. In the Assessment Department they act as surveyors. The remuneration after leaving Sibpur is usually Rs. 65 as an initial salary. A supervisor receives Rs. 150 to Rs. 200. The higher posts carry salaries from Rs. 500 to Rs. 750. The small municipalities and district boards employ engineers. Two of the district engineers are engineering graduates and a third is a promoted upper subordinate. The witness submitted a memorandum showing the men employed and their qualifications (*vide* appendix). Very few European engineers are employed by the corporation. The Chief Engineer receives Rs. 2,500, with a provident fund. The Drainage Engineer receives Rs. 1,300, the Water-works Engineer Rs. 1,200, and the City Architect Rs. 1,350.

2. *Architecture.*—The witness thought there should be a big opening for architects in Calcutta. The work at present is usually done by engineers.

3. *Staff of the corporation.*—The clerical and administrative staff of the corporation is recruited from candidates about the intermediate standard. A B.A. obtains a preference in appointments. The usual initial salary is Rs. 30. The total clerical staff is about 500. The highest ordinary rate of salary is Rs. 150, but there are special posts on higher salaries. A shorthand-typist receives about Rs. 60 to Rs 80. Reporters receive Rs. 300 to Rs. 400. Some previous training in precis writing, book-keeping, etc., would be valuable for the ordinary clerks.

4. *Practical training.*—The witness regarded the railway workshops as Government institutions in writing his memorandum. The Bengali would prefer going into Government rather than private workshops. The witness said that at present Indian apprentices were taken in the municipal workshops and he would be willing to take in more.

5. *Rates.*—The corporation would be reluctant to reduce rates for the University and educational buildings. The witness did not think that a majority of the corporation would be in favour of such a proposal.

6. *Removal of the University.*—It is probable that the Improvement Trust will make a park to the east of the city. The witness doubted the expediency of removing the University outside. It might be wise, however, to go outside for the residences and playgrounds. After Maniktola has been improved it should be a good residential area. Land in Maniktola, however, is already expensive.

APPENDIX.

List of employees in the Corporation having engineering or survey qualifications and drawing less than Rs. 1,000 p.m.

No.	Initial grade pay.	Present grade pay.	Length of service.	Nature of employment.	REMARKS.
	Civil Engineers—Thomason Civil Engineering College, Roorkee.				
	Rs.	Rs.	years.		
1	500—600	500—600	5	Superintendent of Stores .	Also qualified as a civil and electrical engineer from the Thomason Civil Engineering College, Roorkee.
1	300—400	300—400	2	Resident Engineer (Drainage)	Ditto.
1	150—200	150—200	6	Building Surveyor . .	Ditto.
3					

PAYNE, The Hon'ble Mr. C. F.—*contd.*

List of employees in the Corporation having engineering or survey qualifications and drawing less than Rs. 1,000, p.m.—contd.

No.	Initial grade pay	Present grade pay.	Length of service.	Nature of employment.	REMARKS.
			B. E.'s.		
	Rs.	Rs.	years.		
2	200	500—750	10—16	District Engineers.	
2	200	500—750	5—7	Building Surveyors.	
1	150—200	150—200	1	Pipe Layer.	
1	100	100	6 months	Do.	
1	80	150—200	5	Building Surveyor.	
7					
			L. C. E.'s.		
1	150—200	150—200	11	Sub-Assessor.	
1	80	250—300	19	Assistant Assessor.	
1	80	150 (consolidated)	4	Building Surveyor.	
1	50	150—200	5	Do.	
4					
			F. E.'s.		
1	120—150	300—400	16	Deputy Surveyor.	
1	120—150	200—300	18	Building Surveyor.	
1	60	200—250	17	Do.	
1	65—80	100—150	12	Sub-Assessor.	
1	65—80	65—85	16	Supervisor.	
1	40—50	40—50	1	Ward Surveyor.	
6					
			Sub-Engineer and Foreman Mechanic.		
1	100—150	500—750	25	District Engineer.	
1	100—150	100—150	15	Overseer.	
2					
			Upper Subordinates and Overseers.		
1	200—300	200—300	13	Building Surveyor.	
5	100—120	150—300	17—22	1 Building Surveyor. 3 Supervisors. 1 Assistant Assessor.	
4	75—150	100—200	1—13	1 Supervisor, 5 years. 1 Estimator, 13 years. 1 Pipe Layer, 1 year. 1 Bustee Surveyor, 11 years.	
20	65—80	65—80	1—10	Overseers and Building Inspectors.	
6	65—80	65—80	10—15	Do. do.	
3	65	84—88	5—7	Building Inspectors.	
1	65—80	150—250	16	Supervisor.	
1	50	65—80	3	Overseer.	
4	40—50	100—200	15—28	1 Supervisor, 28 years. 2 Supervisors, 15—20 years. 1 Inspector, 22 years.	
1	30	150—200	21	Sub-Assessor.	
4	30—50	50—88	10—17	1 Ward Surveyor, 10 years. 1 Overseer, 17 years. 2 Building Inspectors 13 and 17 years, respectively.	
7	40—50	50—65	10—15	Assessing Inspectors.	
7	40—50	40—50	1—8	Ward Surveyors.	
3	40—50	80—150	15—17	1 Sub-Assessor on Rs. 100—150, 16 years. 2 Assessing Inspectors on Rs. 80—100, 15—17 years.	
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PAYNE, The Hon'ble Mr. C. F.—*contd.*

List of employees in the Corporation having engineering or survey qualifications and drawing less than Rs. 1,000 p.m.—contd.

No.	Initial grade pay.	Present grade pay.	Length of Service.	Nature of employment.	REMARKS.
			Lower Subordinates and Sub-Overseers.		
	Rs.	Rs.	year.		
1	80—100	80—100	1	Pipe Layer.	
1	30	80—100	13	Building Inspector.	
1	30	65—80	13	Overseer.	
5	40—50	80—100	4—14	3 Building Inspectors, 4—12 years. 2 Assistant Surveyors, 13—14 years.	
1	40	50—65	6	Bustee Leveller.	
1	40	42	5	Building Inspector.	
2	60—80	65—85	5—8	1 Overseer. 1 Estimator.	
7	50—65	50—65	1—5	Sub-Overseers.	
19					
			Survey Final Examination.		
3	50—65	50—65	1—10	Sub-Overseer.	
			Mechanical Apprentice Class.		
1	80—100	80—100	1	Pipe Layer.	
			Board of Trade Certificate (London), 1st class.		
1	300—400	400—500	10	Manager, Workshop .	European.
			Board of Trade Certificate (Calcutta), 2nd Engineer.		
1	200—250	200—250	8	Foreman, Workshop .	European.
			Other Qualifications.		
1	150—200	150—200	2	Assistant Foreman . .	Anglo-Indian. First class apprenticeship certificate from Messrs. Burn & Co.
1	80—100	80—100	4	Roller Supervisor . .	Anglo-Indian. Five years' apprenticeship in the Corporation workshop.
1	50	325 (consolidated)	31	Superintendent, Drawing Department, Chief Engineer's Office.	Parsee. Trained in Civil Engineering College, Sibpur.
1	300	500—750	21	District Engineer . .	Trained in Cooper's Hill College.
1	50	120	19	Inspector . . .	Practical Leveller and Surveyor.
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QUESTION 16.

What steps would you recommend for the encouragement and stimulation of independent investigation into Indian and other problems among the alumni of the University? Do you hold that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity among the students? Do you consider that the existing system creates and developes such curiosity?

ANSWERS.

AIYER, Sir P. S. SIVASWAMY.

For the encouragement and stimulation of independent investigation and research it is necessary to create a number of research fellowships tenable for a period, say of five years, and renewable on proof of good work done. In a poor country like India it is mere moonshine to expect people to devote themselves to research without bestowing a thought upon their means of subsistence. Unless a research worker is furnished with the means of maintaining himself while he is engaged in prosecuting his research it will not be possible to attract persons to the field of original investigation. To fellows who have attained success in research work careers must be thrown open in the educational service of the presidency. I would also grant opportunities for study in foreign countries by introducing a liberal system of scholarships and of study leave. The provision of suitable libraries and laboratories attached to the University would also be a necessary step for the encouragement of research.

ALI, SAIYAD MUHSIN.

The founding of scholarships and provision for necessary materials and appliances. The chief root is not as stated, nor is curiosity created and developed.

ALLEN, Dr. H. N.

At present the Bombay University has to aim at training thoroughly good practical engineers. It is hoped that an atmosphere of research will be created in the engineering laboratory in Poona, and that a certain proportion of students will find it worth while to return to the college after graduating, to undertake research work. The research spirit is certainly necessary if the best engineering work is to be done by our graduates.

ANNANDALE, Dr. N.

I do not think that the existing university system in Calcutta creates and developes a spirit of independent investigation among students. For some years past I have been attempting to draw up a scheme for the encouragement of zoological investigations in connection with my own department. The scheme has been forwarded informally to the Government of India and will, I understand, receive favourable consideration, with certain unimportant modifications, as soon as the financial position renders it possible. My scheme of course is purely experimental and is purposely of extremely limited scope. The scientific staff of the Zoological Survey consists of four officers. I think that all of us can claim to have done something to assist young investigators and to promote the research spirit but, strictly speaking, this is not our official work. We can at most devote but a small part of our time to it.

BANERJEA, J. R.—BANERJEA, Dr. PRAMATHANATH—BANERJEE, GAURANGANATH—BANERJEE, Sir GOOROO DASS.

BANERJEA, J. R.

The founding of research scholarships. The chief root of such independent work must be the existence of a widespread and genuine intellectual curiosity among students. The existing system creates and developes such curiosity to some extent. This is due to work done by university professors and others, as well as some university endowments (*e.g.*, Jubilee research prizes, Griffith memorial prize, Ghosh research scholarships). But the number of research scholarships and, if possible, the value of these ought to be increased so that independent investigation might be more fruitful of results than it has hitherto been.

BANERJEA, Dr. PRAMATHANATH.

I would recommend the foundation of a large number of research scholarships, the active promotion by Government of original work by offering facilities to research scholars and rewarding their services, and the creation of an intellectual atmosphere by bringing advanced students into personal contact with teachers who have devoted their lives to research work. It is true that the chief root of such work is the existence of a genuine intellectual curiosity, but in every country it is only the few who pursue knowledge for knowledge's sake and the many are actuated by less worthy motives. The existing system is, it must be admitted, not very helpful for the development of such curiosity, but the real impediment is to be found not so much in the defects of the University system, as in the political and social conditions which prevail in the country.

BANERJEE, GAURANGANATH.

I recommend that the following steps be taken for the encouragement and stimulation of independent investigation into Indian and other problems among the alumni of the University:—

(*a*) Philosophy, philology, history, and economics should be studied and taught, with special reference to Indian conditions, culture, etc.

(*b*) Special chairs like those of the Carmichael professor, the Minto professor, the Hardinge professor, etc., should be endowed and maintained for investigation, and instruction in Indian philosophy, mediæval and modern Indian history, Indian economics and administration, the comparative and historical study of the vernacular language and literature, etc.

(*c*) Scientific investigations leading to the development and utilisation of the economic resources of India should be undertaken and encouraged among the alumni, *e.g.*, commercial chemistry, exploitation of the mineral resources, scientific agriculture, shipbuilding, etc.

(*d*) To facilitate this, and to gather advanced knowledge from European experts, each and every student should possess a workable knowledge of either French or German, preferably both.

I hold that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity among students. The existing system creates and developes such curiosity only to a limited extent.

BANERJEE, Sir GOOROO DASS.

"For the encouragement and stimulation of independent investigation into Indian and other problems by the alumni of the University" I would recommend the estab-

BANERJEE, Sir GOOROO DASS—*contd.*—BANERJEE, JAYGOPAL—BANERJEE, Rai KUMUDINI KANTA, Bahadur.

lishment of research fellowships and prizes in Indian economics, Indian agriculture, including Indian textiles, Indian zoology, including Indian pisciculture, sericulture, and entomology.

The existence of genuine intellectual curiosity among students is necessary for the success of any such scheme. I regret to say that the existing system does not help much to create or develope such curiosity. The reason for it is that the existing system, with its long and ambitious courses of study, is so exacting in the amount of book learning it requires as to leave insufficient time to the student for independent thinking, intelligent observation, and initiative work. We should reduce the length of our courses of study so as to reduce the time for reading in order to leave time for thinking.

—

BANERJEE, JAYGOPAL.

Healthy changes introduced into the University in recent years mainly through the able administrative capacity and catholic outlook of its last vice-chancellor, Sir Asutosh Mukherjee, have already created the desired genuine intellectual curiosity as evidenced by the first instalment of research work done by its alumni under the guidance of distinguished professors like Dr. P. C. Roy and Dr. B. N. Seal. What is more important now is the creation of sufficient funds and the equipment of libraries and laboratories. Co-ordination and reciprocity of scattered resources and individual efforts is equally urgent and valuable. Scholarships and exhibitions on a more liberal scale and, where necessary, sufficient to enable the holders to be trained in foreign countries should also be more systematically organised. It is a fatal mistake to indulge in the showy luxury of spending handsome amounts in attracting *at this stage* eminent and scholarly readers and lecturers from other lands who are not acquainted with the local needs, conditions, and difficulties, with the past history of the country, nor in living touch with the peculiar circumstances under which work has to be carried on here, nor sympathetic towards the views and opinions of the educated community.

Independent *schools of thought and investigation* which alone can yield permanent and fruitful results can never be created except by scholars directly in close touch with the country's special problems, her peculiar situation, past history, traditions, and her latent possibilities.

The University ought to institute a "Bureau of Intelligence" under indigenous scholars to collect information and tabulate results regarding India's needs and possibilities, her available resources, and the existing difficulties with a view to *definitely* lay down lines of future work and indicate the directions in which young workers ought to proceed.

Charts and maps should be prepared by means of "regional" surveys and extensive "tours" for historical, antiquarian, and economic investigations organised mainly for the benefit of post-graduate scholars and research students.

BANERJEE, Rai KUMUDINI KANTA, Bahadur.

If proper university education can be imparted in colleges Bengali graduates will take to independent investigation into Indian and other problems. The best effort should be made to instil the true spirit of university education among undergraduates of colleges. Bengali students are highly intelligent, industrious, and painstaking, they are capable of much improvement under a proper system. The existing system does not generally help to create and develope a genuine curiosity. The present circumstances generally encourage cram and shallowness.

BANERJEE, MURALY DHAR—BANERJEE, SASI SEKHAR—BANERJEE, SUDHANSUKUMAR.

BANERJEE, MURALY DHAR.

To stimulate independent investigation among students two things are necessary :—

(*a*) Creation of a genuine intellectual curiosity, which is not fostered by the present system.

(*b*) Creation of suitable fields of work.

(A) For the first :—

(i) Greater freedom in the choice of subjects should be allowed.

(ii) Greater facilities in the use of libraries and laboratories should be given.

(iii) Original investigations, under the guidance of professors, should be insisted upon.

(iv) Such courses of lectures on prescribed syllabuses or original lines of investigation should alone be delivered by professors as are real contributions to knowledge, and not mere summaries of books. In short, professors should be original thinkers and enthusiasts in their special subjects and able to inspire students with their own enthusiasm.

(v) Instead of making the attendance at a certain percentage of lectures the test of college training, and the condition of appearing in examinations a record of regular laboratory work the tutorial and other such work should be made the condition of appearing in examinations.

(vi) The use of ' keys ' and printed abstracts should be strictly prohibited and these should be prepared by students themselves.

(vii) Written examinations should be supplemented by examinations of some original work done by students of the kind specified under (iii), (v), and (vi).

(B) For the second, provision should be made to supply students, after their university training, with suitable fields of work. It is too much to expect that they will create fields by their own exertions without any State aid or encouragement from the public.

BANERJEE, SASI SEKHAR.

I recommend four steps, *viz.* :—

(*a*) Establishment of fellowships, with stipends.

(*b*) Relaxation of the age-limit for Government service.

(*c*) Periodical magazines for the publication of the results of independent investigation.

(*d*) The existence of a museum for the study of the ancient civilisation of India.

Appointments to fellowships must be made with reference to the character of the appointee, his scholastic attainments, and the promise of success he gives in his line of work. He should be given other facilities, wherever necessary, such as access to old Government records.

The second part of the question can be answered in the affirmative.

BANERJEE, SUDHANSUKUMAR.

For the encouragement and stimulation of independent investigation into Indian and other problems among the alumni of the University the following steps should be adopted :—

(*a*) Arrangements must be made to keep the alumni of the University free from their daily wants and scarcities and to increase their prospects.

(*b*) Residential quarters must be built up, as far as possible, for investigators in the vicinity of big libraries and laboratories.

BANERJEE, SUDHANSUKUMAR—*contd.*—BANERJEE, UPENDRA NATH—BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN—BANERJI, UMACHARAN.

(*c*) No such odd distinction as the imperial and the provincial educational services should be drawn, and the highest appointments should be thrown open to the best investigators.

(*d*) Arrangements should be made, as far as possible, for the delivery of special courses of lectures, carrying the latest news of the world's educational progress, by inviting the most distinguished investigators from Europe and America for the benefit of those engaged in investigation, as well as for the encouragement and stimulation of investigation by others.

Certainly the chief root of such investigation must be the existence of a widespread and genuine intellectual curiosity among students. The existing system does create and develope such curiosity, although it must be said that the creation of such intellectual curiosity depends, to a considerable extent upon the personality of the teacher and his mode of teaching. If the teacher is an investigator himself he will, in general, prepare the minds of his pupils for original thinking.

BANERJEE, UPENDRA NATH.

Teachers, as well as students, must aim at a full, thorough, or complete knowledge of the subjects to be taught and learnt; this teachers cannot do unless they have a thorough mastery over them and boys, too, cannot be expected to learn anything useful unless they are eager to do it, are industrious, patient, and persevering enough to overcome all their difficulties and have a sincere desire to improve and a genuine thirst after sound and really useful knowledge.

As far as teaching is concerned old and stereotyped methods, if useless, are to be avoided and new and better methods to be substituted, if successful. Encouragement should, therefore, be always given to those teachers who are specially qualified in the modern art of teaching, particularly as prejudice and undue favour or partiality on the part of the heads of the teaching staff are greatly prejudicial to their true interests, thus marring all their prospects in life; cases of such undue supersession and similar instances of flagrant injustice are matters for the serious consideration of the school committees, the Director of Public Instruction, and, finally, of the University itself even if the schools are private or aided institutions.

Recourse not to be had to recommendation or canvassing to have text-books approved by the text-book committee.

BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN.

I think that the chief root of research work is the existence of genuine intellectual curiosity among students, but I fear the existing system does not develope such curiosity. The question of stimulating and encouraging research work is not an easy one. One great difficulty in the way of students is that many of them, especially those who would be able to do such work, are not in affluent circumstances and are not in a position to pursue their studies further. They are anxious to earn and, therefore, enter a profession after graduating. The founding of liberal scholarships would be one means of enabling such students to undertake research work and of encouraging independent investigations.

BANERJI, UMACHARAN.

For the encouragement and stimulation of independent investigation into India and other problems I would suggest the establishment of a research institute in connection with the existing University and any other university or universities that may be set up in the presidency. Such an institute should be under the control and guidance of able professors and lecturers and also specially qualified pandits and maulvis. It

is certainly true that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity amongst students. I consider that the existing system does not create and develope such curiosity. But, at the same time, it is undeniable that the newly made arrangements in the post-graduate classes of the University under the able and judicious guidance of the Hon'ble Sir Asutosh Mukherjee have certainly given a healthy stimulus in that direction.

BARDALOI, N. C.

Yes; a genuine curiosity must exist for such work. The existing system does not create such a curiosity.

BASU, P.

For the encouragement and stimulation of independent investigation into Indian and other problems among the alumni of the University it is necessary that the results should always be properly recognised. An expert body should be constituted for the purpose. At present, the University only confers two kinds of honours for original investigation—the Premchand Roychand Studentship, which is limited to those who can go in for it within twelve years of matriculation, and the doctor's degree, which requires, and should require, a very great success in research and, therefore, excludes many persons. Moreover, the studentship is one scholarship distributed amongst so many subjects which are in themselves incapable of comparison. Such scholarships should be increased in number; at least one must be retained for each subject if deserving candidates do come forth for the same. Thus, these scholarships would lead from research of a less high character to the doctor's degree, entailing research of a very high character. A continuity of growth will, in this way, be furnished after finishing the University career. During the University career it would be profitable to introduce a system of thesis which should contain some original investigation on the part of deserving students during their post-graduate career, and which should be allowed to be submitted for a part of the examination. This, in fact, is the system recommended by the boards of higher studies to the University. Special encouragement may be given to research by attributing some exceptional honour to those students who creditably pass out with a thesis submitted in lieu of a part of the examination. Thus, from the University life a continuous encouragement would be given to research work up to such a high standard as is required by the doctor's degree. Beyond this it requires no encouragement since a person who has gone so far is, naturally interested very much in this subject, and proceeds forward encouraged by his own successes.

But all these mean that the University should possess an atmosphere of research work. This can only be attained by giving exceptionally favourable opportunities to teachers which they should be compelled to utilise. They should have more leisure for doing the work. They should be given all necessary help in getting materials for their work, whether that can be supplied by Government or by any other public body. This is essential. For example, if any one undertakes research work in any branch of economics with a view to study Indian conditions Government should give, on the recommendation of the University, all possible help in the form of placing its statistical or other records at his service, and in the form of giving him assistance if he wants to see things personally in the country. To persons unknown to the system prevailing in India the latter assistance seems superfluous. So I take the liberty of explaining it at length. As examples of economic research we can take the work of Thorold Rogers on *Work and Wages* or that of Soetbeer, Sauerbeck, etc., on *The proportion of income and expenditure prevailing in the different grades of society*. For either of these, and particularly for the latter, it is absolutely necessary to gather reliable first-hand information which can be gathered by travelling among the people and introducing the subject as a mere topic of conversation, for nobody would tolerate one who deliberately attempts to know the private income and expenditure of another. So this caution of introducing the sub-

BASU, P.—*contd.*—BASU, Rai P. K., Bahadur—BASU, SATYENDRA NATH—Bengal Landholders' Association, Calcutta.

ject is necessary. One's work is sufficiently difficult. But it is made more difficult or impossible by Government, or rather a department of the same, the police. I myself attempted to get a record of the wages of the different kinds of labour prevailing in Bengal during the last half-century or for as long a period as I could know of from the people now living. There are no such statistics published by Government and yet, if it could be gathered even approximately, it would form a very good idea of the economic progress of the country, class by class. In fact, this is the real test for progress. I had, naturally, to ask several of my friends to join me in the work, most of whom declined on the ground that when, during vacations, they go home they usually confine themselves to their native villages, stirring out of which means shadowing by the police and the consequent incarceration. I myself suffered from the same for about two or three months after which I had to give up my project to secure my personal safety. No credential, that I could produce would absolve me from their suspicion, and my project would mean continuous wanderings from place to place during the vacations and mixing with people of various stations of life apparently without any object, since my object would be frustrated if I let anybody know about it.

The above is only one branch of economics, and my case also is not exceptional. I personally know of others who were as honest in their purpose, but met more or less with the same fate. No terms can be too strong to condemn this system. No original investigation in economics, except of historic age, is possible in Bengal or India without first-hand corroboration thereof. In Europe Soetbeer and Sauerbeck are famous names, and they are authorities in spite of their differing from Government statistics. This is bound to be so unless we attach infallibility to Government methods. In India particularly it is so, since no such detailed records, class by class, are even attempted by Government at present.

For research work in economics and sociology it is absolutely essential that the mischievous practice should be discontinued. The arrangement may be made that a university teacher with credentials as to his identity would be allowed to go about without any hindrance whatsoever, and that he would be allowed to choose his associates, who would have the same rights. Any other independent investigator also should have facilities for having such rights if his *bonâ fides* are proved to the satisfaction of the University.

Intellectual curiosity is, of course, essential for research and I think that, with the changes proposed above, that will be developed to a great extent. The teacher should be allowed to indicate the lines of research in the subject which he teaches and the University would give the above facilities. The existing system is not a hindrance to such curiosity, but it requires to be so changed as to give encouragement to such curiosity. This is, in fact, the case in almost all the universities of the world.

BASU, Rai P. K., Bahadur.

It is difficult to pronounce judgment. There are signs of a genuine awakening undoubtedly due to the reorganisation of the University course. It is, however, too early to express any definite opinion.

BASU, SATYENDRA NATH.

The University should encourage investigation into Indian problems by offering to students such facilities as it can provide. A museum, for instance, connected with the University will be useful to them and is expected to create a widespread intellectual curiosity.

Bengal Landholders' Association, Calcutta.

We would recommend post-graduate studies. Intellectual curiosity among students should be stimulated, but we fear that the existing system does not develope such curiosity. The country is poor, and the majority of students come from a poor

Bengal Landholders' Association, Calcutta—*contd.*—Bethune College, Calcutta—BHADURI, JYOTIBHUSHAN, DEY, B. B., AND DUTTA, BIDHU BHUSAN—BHANDARKAR, D. R. —BHANDARKAR, Sir R. G.

class. They have an undoubted desire for education for its own sake, but they do not get sufficient encouragement, as scholarships and free studentships are very few in number. Deserving students should be encouraged and placed in a position by scholarships and stipends to carry on independent investigation.

Bethune College, Calcutta.

Sen, P. N.
Mukerjee, B.G.
Bhattacharya, K.C.
Sen, P. C.
Chatterjee, K. B.
Chowdhury, B. K.
Jauau, Miss A. L.

A widespread and genuine intellectual curiosity is certainly an important motive for the work of independent investigation, but it must be backed up by some sort of organisation to valuate such work and bring it before the learned world. There must be also—at any rate in the human subjects—a personal and patriotic sentiment behind original work, a desire to find the place of one's traditional culture in the culture of the world. There is further the necessity of some sort of material encouragement.

It does not depend upon the University alone to create the stimulus for original investigation. But the University can do much by the following means :—

(*a*) Supplying a nucleus for the organisation desiderated, in the shape of a body of experts of recognised standing.

(*b*) Providing for more stipends and scholarships than are now available to enable promising students to continue post-graduate studies.

(*c*) Concentrating on Indian subjects proper, *e.g.*, Indian history and antiquities, Indian philosophy, etc., on such elements of our ancient culture, in fact, as it is not only obligatory on us to develope and modernise, but as may also constitute a real contribution to the culture of the world.

BHADURI, JYOTIBHUSHAN, DEY B. B., and DUTTA, BIDHU BHUSAN.

Indian students are not wanting in capacity or inclination for original work. In some cases, their enthusiasm has to be curbed, for there is the chance of erring on the side of a too early specialisation.

A real atmosphere of research could be created if we have :—

(*a*) More specialists of first-rate ability in different subjects.

(*b*) Life fellowships for meritorious students.

(*c*) More leisure for professors.

(*d*) Better libraries and laboratories.

BHANDARKAR, D. R.

I do consider that the chief root of independent investigation is the existence of a widespread and genuine intellectual curiosity among students and that the existing system creates and developes such curiosity. But this independent investigation should be fostered as a rule after the M.A. by awarding a good many research scholarships. All such scholarships, again, that are at present awarded by Government should be awarded by the University, the necessary sums being transferred by the former to the latter. It is, however, absolutely necessary that the work of young M.A.'s should be directed and supervised by the professors who hold university chairs.

BHANDARKAR, Sir R. G.

In the present state of circumstances a large number of the alumni of our University do not take any interest in Indian and other problems. Their minds do not seem to have undergone any culture at all. They are often superstitious and fall an easy prey to religious impostors. A good many, however, come under the influence

BHADNARKAR, Sir R. G.—*contd.*—BHATTACHARYYA, KRISHNACHANDRA—BHATTACHARYYA Mahamahopadhyaya KALIPRASANNA—BHOWAL, GOVINDA CHANDRA—BISWAS, SARATLAL—BOSE, Rai CHUNILAL, Bahadur.

of what is going on about them and apply themselves to questions of social and economic reform, but most of these concern themselves with political questions. A widespread and genuine intellectual curiosity does not exist, and to generate this, and to keep the social, economic, and political reformers on the right path, the conditions I have stated in my reply to question 2 must be secured, students being placed under the guidance of teachers of first-rate ability and of recognised standing in their subjects and the classes not being too large.

BHATTACHARYA, KRISHNACHANDRA.

A widespread and genuine intellectual curiosity is the principal motive for original investigation. But, in order that the motive may work, there should be an organisation for valuating the results of such work and bringing them before the learned world. In the human subjects, at any rate, a powerful motive for original work is a personal and patriotic sentiment, a desire to find the place of one's traditional culture in the culture of the world. There is also the necessity for some kind of material encouragement.

It does not depend upon the University alone to create the necessary stimulus for original work. It may be hoped, however, that if a competent professoriate, like that suggested under question 1, can be constituted, it will form the nucleus for the kind of organisation desiderated. Provision may be made for more stipends and scholarships than are available at present, enabling promising students to continue post-graduate studies. There may also be concentration in the University on Indian subjects proper, on such elements of our ancient culture as are more than historic curiosities and may, if modernised constitute a real contribution to present-day culture.

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

Research scholarships should be introduced for the encouragement and stimulation of independent investigation for Indian and other important problems of the day.

BHOWAL, GOVINDA CHANDRA.

State scholarships should be founded for investigation and research in each Indian problem. Endowments by public-spirited and wealthy inhabitants of the country should also be secured.

Yes; the chief root of such work is intellectual curiosity.

No; the existing system does not create and develope such curiosity.

BISWAS, SARATLAL.

Intellectual curiosity is, no doubt, a very important factor in independent investigations. But, as most of the brilliant students from whom research work can reasonably be expected are compelled to earn their livelihood on completion of their university course so pecuniary help becomes equally important. The present system of awarding research scholarships and prizes serves as an encouragement. But the stimulation can be made more widespread if prizes are given for every completed research work coming up to a certain standard.

The recognition of original work by conferring degrees (as suggested in answer to question 1) would also serve as an encouragement.

BOSE, Rai CHUNILAL, Bahadur.

The existing system does not create and develope the requisite kind of curiosity, there are not adequate facilities for satisfying it. I would recommend the

institution of a larger number of scholarships of longer duration for the encouragement and stimulation of independent investigation, and also the appointment of a body of experts to supervise, control, and direct the work of research scholars. Such work should be the property of the University, and should be published under the authority of the University, full credit being given to the scholar.

BOSE, G. C.

The existing system does not create and develope the requisite kind of curiosity.

CHAKRAVARTI, BRAJALAL.

The economic condition of the country, and the consequent struggle for existence, have made all intellectual progress impossible. The true cause of this demoralisation, however, is the materialistic tendency of the time which seeks to stifle all higher aspirations of the mind. It will be for teachers to set up the standard of plain living, which is the necessary condition of high thinking. At the same time, provision should be made by Government and the people for the support of persons engaged in intellectual pursuits so that they may not be driven by sheer necessity to take part in worldly pursuits. In order to make this work efficient and financially successful I would propose to reduce the present graduate standard and to make that the point for leaving for those who are in need of diverse pecuniary pursuits in the world so that only a small number of students who may be inspired with a high intellectual ideal may stay for the post-graduate work.

CHAKRAVARTI, Rai MON MOHAN, Bahadur.

Among many students there is a genuine intellectual curiosity. But the existing system does not develope such curiosity.

I take some interest in history and economy and have, in my leisure hours, tried to do a little research work in Indian history and philology. I find that history and political economy are among the most neglected branches of the University course. Teachers of second or third-class ability who were not deemed fit to teach other subjects are put in charge of history classes. They themselves have done little or no research work and lack the power to stimulate original pursuits by others. The study is reduced to cramming in the lower classes or perfunctory reading in the higher

Object-lessons are not given ; maps are rarely used ; libraries and museums are not shown ; excursions to historical places are not taken ; the current systems of administration are not explained ; and important public institutions in the city are not visited. In fact, history, which should be the most interesting of all branches of knowledge, as dealing with men and their lives, becomes, in the long run, a dread for the examinees from the great bulk of facts to be crammed on account of the wrong methods of teaching

CHANDA, The Hon'ble Mr. KAMINI KUMAR.

I would recommend the creation of scholarships and fellowships as in English universities.

CHATTERJEE, The Hon'ble Mr. A. C.

I would recommend :—

(*a*) Good stimulating teachers.
(*b*) Libraries, laboratories, etc.

CHATTERJEE, The Hon'ble Mr. A. C.—*contd.*—CHATTERJEE, Rai LALITMOHAN, Bahadur —CHATTERJEE. RAMANANDA—CHATTERJEE, Rai Bahadur SARAT CHANDRA—CHATTERJEE, SATIS CHANDRA.

(*c*) An intellectual atmosphere.
(*d*) Liberal post-graduate scholarships.
(*e*) Prizes at the different stages of the undergraduate career.

The chief root is the existence of a widespread and genuine intellectual curiosity among students.

The existing system does not create and develope such curiosity.

CHATTERJEE, Rai LALITMOHAN, Bahadur.

I would recommend the following :—

(*a*) The award of research scholarships to promising students (after they have taken their master's degree) for a limited period with a promise of a suitable permanent post on their showing really valuable work.
(*b*) The encouragement of research by Government by giving every facility to the holders of research scholarships to investigate their problems and by defining their task for them.

The present system does not develope intellectual curiosity.

CHATTERJEE, RAMANANDA.

I would give professors and students real freedom of teaching and learning and of expression of thought—within the limits of the law, of course—but under no other restriction whatsoever. Politics, as such, must not be tabooed. Economics must not be only such as would suit the British exploiters of India and their allies among the British bureaucrats in India and Great Britain. Similarly with history and other subjects. No one, whether teacher or student, must be penalised in any way for any opinion which is not unlawful. These are the negative conditions. The positive conditions are the institution of lectureships, and courses of lectures on Indian problems, requesting the foremost Indian thinkers and workers to address students on these questions, the granting of degrees, prizes, etc., for original work done in connection therewith, etc.

One of the chief roots of such work is, undoubtedly, the existence of a widespread and genuine intellectual curiosity among students. But perhaps the strongest motives would be the instinctive desire for inward growth, self-realisation, and self-expression, and the love of man as man and the consequent desire to serve, called by the names of social service, philanthropy, patriotism, etc. The conditions of life for our young men should encourage and strengthen these motives, instead of discouraging, and sometimes penalising, them. Present conditions are not satisfactory.

I do not think the existing system creates and developes intellectual curiosity to an adequate extent. It may be created and developed with greater freedom of teaching and learning.

CHATTERJEE, Rai Bahadur SARAT CHANDRA.

Post-graduate scholarships, medals, and prizes and special chairs for the study of Indian problems.

Yes; the chief root is as stated.

No curiosity is created and developed by the existing system.

CHATTERJEE, SATIS CHANDRA.

The existing system of university training creates, but does not always develope, that intellectual curiosity among students, which is, I think, the chief root of

independent investigation into Indian and other problems. For the encouragement and stimulation of such investigation I would recommend the establishment of an oriental research institute, which should be placed under the control of the University, and in which the University should be strongly represented.

CHATTERJEE, SUNITI KUMAR.

There never was any lack of widespread and general curiosity among our students; but, owing to general poverty prevailing among them it has not been possible for this curiosity to be satisfied. Even in the case of students not so handicapped want of proper organisation has so long prevented any sustained independent work. But, fortunately, the reorganisation of the University has put new life into the existing system of higher training, and has actually stimulated this curiosity not only among students and junior professors, but also among many senior men. But funds must be forthcoming, greater resources and more thorough organisation must come in to develope it and make it bear fruit. Greater facilities for work in the shape of libraries, museums, and laboratories, as well as scholarships and fellowships, and opportunities of contact with foreign professors of eminence and of foreign experience are wanted. An Indian research institute may be started under the University, and the post-graduate classes can very well form the nucleus of such an institute.

CHATTERJI, MOHINI MOHAN.

I would recommend the creation of a university chair for the investigation of special Indian problems. The absence of intellectual curiosity, which undoubtedly exists, can, with some confidence, be attributed to the fact that university education is desired principally as a passport to employment.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

I recommend post-graduate students. Intellectual curiosity among our students should be stimulated, but I fear that the existing system has not developed such curiosity to any great extent. The country is poor, and the majority of our students come from a poor class. They have an undoubted desire for education, but do not get sufficient encouragement, scholarships and free studentships being few in number. Deserving students should be encouraged and placed in a position, by scholarships or stipends, to carry on independent investigation. They should be freed from pecuniary anxieties when engaged in research work.

CHAUDHURI, BHUBAN MOHAN.

It must be admitted that the existing system creates a thirst for knowledge of Indian and other problems among very few students. This is due to the facts that students have not the advantage of being taught by first-rate teachers, who alone can create an interest in the minds of students, that the difficulty of acquiring knowledge through a foreign language naturally gives rise to a dislike, rather than an inclination, to acquire further knowledge, and that the ideal held before students is very narrow. The subject should form a part of the curricula of degree examinations in history, and economics should be taught by first-rate teachers interested in the subject, and there should be a freedom of teaching and study.

CHAUDHURI, HEM CHANDRA RAY—CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur—CHOUDHURY, Rai YATINDRA NATH.

CHAUDHURI, HEM CHANDRA RAY.

I recommend the expansion of the libraries, the institution of more research scholarships, the publication of the works of research scholars and of the University lecturers by the University, and the encouragement of visits to historic sites.

The chief root of research work must be not only the existence of a widespread and genuine intellectual curiosity among students, but sufficient means to satisfy that curiosity.

Yes; the existing system creates and develops such curiosity.

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur.

I have already indicated in answer to more than one question that the present system does not neither create nor develope any curiosity among the alumni of the University for independent investigation into various branches of learning. The chief aim of students being merely to obtain as high a degree as is possible under the gift of the University to confer cramming and other defects of the under-graduate work are carried into post-graduate or research work; and the Calcutta University has consciously, or otherwise, systematically encouraged this spirit since the regulations under the University Act of 1904 were given effect to in 1908. Though several chairs have been founded either with its own resources, or with Government aid, although the College for Science has been started, and a good deal of money spent over it and its necessary accompaniments, the arrangement for post-graduate work has been far from satisfactory. Hundreds of students are every year admitted into the University classes without examination of their merits or capacity or the provision of necessary tutorial and residential arrangements for them. This inrush of students is encouraged by the low fees charged by the University. The University has disabled the Presidency College from carrying on its more efficient post-graduate work. It has also practically done nothing to co-ordinate post and under-graduate work. In these circumstances, it is idle to expect that, with all possible assistance and encouragement, the present work can be productive of good results. The University should first be converted into a really teaching University. Its present resources would be ample to provide necessary facilities for proper research in at least a few directions. Government may well then come to the aid of the University to undertake work in a few more. Without this fundamental change in the organisation and aim of the University no amount of private benefactions, endowments, and Government aid, nor special scholarships, followships, and similar facilities will bring any tangible result. Care also should be taken to see that the provision for investigation into Indian problems appeals to, or is equally shared by, qualified young men from all sections of the people of Bengal. There should not, as at present, be any decided bias towards any particular field for investigation—such as the ancient history of India—nor should the University be swamped by members of one class. At present, out of about 80 professors or lecturers engaged in post-graduate work there are in all about 8 Europeans and 3 Muhammadans. Such an arrangement does not tend to create confidence in the different classes of the public, nor does it promote the cause of efficiency. I would, therefore, strongly advise that, apart from the material facilities in the shape of well-equipped laboratories, libraries for different branches of learning, etc., the provision of scholarships and followships, and provision for exploration and similar conveniences, the University should take proper care to import men from outside, if necessary, who are experienced in the conduct of research work, and it also should provide facilities for research in departments of work which may specially appeal to particular communities.

CHOUDHURY Rai YATINDRA NATH.

The present system of university education does not create and develope amongst our students a widespread and genuine intellectual curiosity for independent investigation into Indian and other problems. The reason is partially historical, and

CHOUDHURY, Rai YATINDRA NATH—*contd.*—COLEMAN, Dr. LESLIE C.—COVERNTON, The Hon'ble Mr. J. G.—CROHAN, Rev. Father F.

lies partially in the temperament of our countrymen. Consequently, additional stimulus ought to be given to our students for encouraging them in the matter of these studies. With this view our University should themselves, and from the funds received through Government and the patriotic public, provide adequate studentships for competent students to carry on studies in these matters. Studentships should be instituted for carrying on researches in the following subjects :—

(*a*) Indian history and antiquity.
(*b*) Indian sociology.
(*c*) Different schools of Indian philosophy and logic, and their history.
(*d*) Indian economics.
(*e*) Anthropology.
(*f*) Pure and applied sciences.

By adopting these means, and by instituting separate colleges for the study of these branches of learning, I think a genuine intellectual curiosity among our students and our countrymen at large would be created.

COLEMAN, Dr. LESLIE C.

The lack of genuine interest in the subjects which they have chosen for study is, undoubtedly, one of the greatest faults of Indian students. I do not think you can create such interest by any system of instruction. It must, in the first instance, be created by the teacher. In the second place, very much greater inducements for research must be held out than is now the case.

COVERNTON, The Hon'ble Mr. J. G.

The answers given to questions 1, 2, and 15 may afford suggestions for the procedure to be adopted in order to encourage independent investigation. At present, among the classes that fill the universities there cannot be said to exist a widespread and general intellectual curiosity in regard to modern problems of practical life and scientific research. Such tendency as there is is dominated by vague, but narrow political, considerations, and, therefore, is shallow and one-sided. On the other hand, an embryonic spirit of general enquiry has come into being in certain quarters and, if rightly fostered and not bent to temporary or political aims, should thrive and prove fruitful. Work done under this influence by certain members of the staff at the Fergusson College, Poona, is promising and, in due time, will more than justify itself. Whether anything of this sort obtains in Bengal I do not know. On the scientific side the researches of Professor Bose might come under this category, but the Poona developments open out several other fields—social, economic, and so forth—and, therefore attract wider interest than investigations into questions of pure science, can do.

CROHAN, Rev. Father F.

The present system does not develope any intellectual curiosity. Among the causes the following may be mentioned :—

(*a*) The securing of the degree is made the only thing necessary by Government, etc., for obtaining employment.
(*b*) The absence of a proper teaching of history and geography in schools has not opened the mind and excited the wish to know what is outside the student's restricted sphere of life.
(*c*) Reading is not sufficiently insisted upon.
(*d*) Much is also due to the fact that the personal influence of the teacher is not directed this way.

CULLIS, Dr. C. E.—DAS, Rai BHUPATINATH, Bahadur—DAS GUPTA, HEM CHANDRA.

CULLIS, Dr. C. E.

The promotion of independent investigation can best be effected by the provision of subsidiary teaching posts which will give the holders ample leisure for that purpose. A desire to engage in investigation is common and easily excited amongst our students, but is subordinate to the necessity for earning a livelihood.

A widespread spirit of intellectual curiosity promotes investigation, but is not alone sufficient. One often meets the aspiring investigator whose labours are misapplied or ineffective because of the total inadequacy of his knowledge.

In prosecuting an extensive scheme of study for an advanced examination a student is acquiring by a short cut a general knowledge of the subject and the methods which have been used in it and, at this period, has to constantly suspend his curiosity. If the student is not particularly able, and has the passing of the examination as his sole object, this process will tend to deaden his intellectual curiosity. But the able student who regards this labour as preparatory reaps a reward afterwards in the greater power he has gained.

So far as a subject which has reached a high stage of development is concerned an investigator who starts without this preliminary forced labour is generally too heavily handicapped to work independently.

If training of the faculties were the only object of a university course the schemes of study would be much less extensive but, under the present system, the rapid acquisition of a wide range of knowledge is another object.

DAS, Rai BHUPATINATH, Bahadur.

One great drawback to distinguished graduates devoting themselves to research work is the difficulty of finding an opening in life afterwards. It is also found that a student who enters the service after devoting three or four years to research work does not get any consideration in the shape of an initial higher salary, the result being that he finds himself junior to some of his contemporaries or even those who graduated after him. I think the number of students who possess the intellectual curiosity necessary for the pursuit of research is few; but there is a growing desire among students to take up this work. The rule permitting such candidates for the M.A., M.Sc., as had obtained honours at the B.A. or B.Sc. to offer a piece of research work in lieu of a portion of the examination provides opportunities for taking up research after graduation. I am sorry to observe that, in such cases also, some are guided not by a spirit of enquiry, but by a desire to obtain the degree more easily. For instance, a candidate for the M.Sc. examination in chemistry has, ordinarily, to take a general examination in all the three branches of the subject (inorganic, organic, and physical), and a special examination in one of them. A student who offers a piece of research work in one of the subjects is excused the general examination in the other two. His course for the examination is thus reduced to half; and if he can get out some results in his research he can count upon a fair place in the list of successful candidates even if he does not do well in the written part of the examination, the research work alone carrying half the total number of marks.

DAS GUPTA, HEM CHANDRA.

I would recommend the foundation of scholarships, fellowships, etc., by Government and the University for the encouragement and stimulation of independent investigation into Indian and other problems among the alumni of the University, and also a wide appointment of qualified Indian graduates to the departments under Government engaged in such investigation.

I hold that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity among students, and I consider that the existing system creates and develops such curiosity.

DAS GUPTA, KARUNA KANTA—DAS GUPTA, SURENDRANATH.

DAS GUPTA, KARUNA KANTA.

It should be the aim of the University to stimulate original research by opening the prospects of the best intellects of the country in the Education Department itself. It is, unfortunately, in rare instances only that persons of the highest ability and attainment consider it worth while to devote their life to educational work or to original research. In many cases "chill penury represses their noble rage."

DAS GUPTA, SURENDRANATH.

The most important thing necessary to foster a spirit of research is to raise its dignity. Those who are given to research so that they cannot do without it should continue without any expectation of any kind, but merely for the love of the subject. Such men of first-rate sincerity and devotion to studies, however, must always be few. If the spirit of research is to be spread among the University students in general it is necessary that those who devote themselves to it should have a special honorarium, advantages of service or particular honourable situations in the University, so that capable and ambitious young men might be attracted towards these pursuits for the sake of the advantages at least.

Hours of lectures should also have to be lessened for the professors who carry on investigations for the advancement of their subjects.

Capable students should be associated with them as their assistants with research scholarships. In these days Government research scholarships are often wasted on candidates who treat them as mere resting or probationary places where they must wait until they can obtain service.

Every B.A. candidate should be required to prepare in the course of his studies a thesis for submission at the final examination. This will gradually direct his thoughts towards the problems of research and, as he studies and seeks instruction from his professors, his curiosity will gradually be roused and kept up when he sees his professors performing their investigations in the libraries or the laboratories. The results of the investigations should be regularly published in the *University Journal* and, after that, printed under the management of the University at the expense of the University. Professors may also be required to deliver their lectures before students in general in order to interest them in the matter. Graduate and post-graduate studies should always be run together so that the works of the latter may fill the former with a spirit of emulation. With regard to researches it should be borne in mind that the thing most needed for the purpose is the creation of an atmosphere of research. I have seen most capable men becoming idle for want of scope and proper environment. Almost in no college has there been made any provision for higher studies; as a result of that professors think that their duty is finished as soon as they finish their elementary class work. The department wants nothing more, the students do not want anything more, and the University is also perfectly indifferent (as there is no scope for it to become otherwise under the existing arrangements). Then, again, in each subject there are only two or three men in a college, and there is no opportunity for even the most willing professor to talk about his subject with those who have already done some work. They are alone and unfriended in their literary endeavours. For a student of research nothing is so unpleasant than this sense of helplessness and aloofness; he cannot speak with any of his fellow-professors on the subject as they are not interested, and his gratuitous conversation has often the chance of appearing an infliction upon them. He has to work and wait for the publication of his work to see if any recognition comes from outside; but it is extremely difficult for the financial resources of a professor to meet the expenses of any publication, and particularly so because researches in higher subjects of a specialised nature cannot, in any case, be profitable concerns. Even if the book is published he cannot expect much sympathy from his colleagues. So a research student in our country has to face the hardest of literary adversities, namely, that of loneliness, want of sympathy, facilities, and encouragement. Under these circumstances only those who have the asset of

patience and devotion of the most unflinching type in the cause of research can continue their studies for the furtherance of the subject in which they are engaged. Even such men who can prove by competent work that they are fit for continuing research seldom obtain any chance of associating with the best men in a good centre of culture though they may try their best for it. Some men may often have to resign their services, but, as such is the tradition of the present education system, nothing is done to render them any assistance or help.

Within a very short time a great tendency for research has originated in Calcutta the like of which has not been found in the history of Bengal education in the previous six decades of its existence before 1910. The reason for this is to be found in the facilities which the Calcutta University has been trying to offer under the most efficient administration of Sir Asutosh Mukherjee. These in themselves are insignificant when compared to those which are offered in other successful universities, but even then they have been successful. Practically what the Calcutta University has done is the founding of a few chairs of importance and the creation of the Griffith prize and the doctor degree and the transference of the Premchand scholarship to the research basis. Experience shows that they have been of immense value. What useful advances in the research field can be expected if Government should act in perfect co-operation with the University and should get all the men fit for continuing research work at Calcutta and get the ablest men of reputation from a wide field (those that have really distinguished themselves by their researches, and not merely holding good diplomas from a foreign university) and associate willing professors with these men and found further fellowships and prize essays and give them proper facilities of library and laboratory and leisure to carry on their investigations! As it stands now the lot of a person willing to continue researches is, indeed, the most dreary and desolate that can be imagined. I should particularly invite the attention of the Commission to give them some encouragement or protection. No spirit of research can grow if the workers get no support (I mean more especially the moral or the intellectual support, by helping them to get their intellectual food more easily and to give them time and rest enough to assimilate them).

DE, HAR MOHUN.

Some handsome scholarships should be reserved for persons distinguished by their work of investigation into Indian and other problems.

That the existence of a genuine intellectual curiosity is necessary cannot be doubted. This depends more upon the personality of teachers than upon the system of education.

DE, SATISCHANDRA.

Research scholarships should be created. A scholarship should be tenable at first for a year, and should be continued only when the holder has done really good work during the year. Much care should be taken in the selection of research scholars. Students should be placed under one or two professors or lecturers in a subject, who should devote their time wholly to research work, the results of which should be embodied in an annual report. Such professors or lecturers should not be transferred without sufficient reason.

DEY, BARODA PROSAUD.

Encouragement, opportunity, and proper guidance seem to be the conditions needed for independent investigation by the alumni of the University. The existing system is wanting in the same.

DEY, N. N.—D'SOUZA, P. G.—DUKE, W. V.—DUNNICLIFF, HORACE B.

DEY, N. N.

No effective attempts have ever been made by the University to Indianise the culture as much as possible which alone can create a widespread and genuine intellectual curiosity among students and encourage the alumni and stimulate them to take up independent investigation into Indian and other problems. For example, the outlines of Hindu philosophy might be included in the syllabus of the ordinary B.A. as some of the most glorious achievements of the Hindus have been in the region of philosophy, and the University may bring them to the calm and respectful consideration of its undergraduates, especially as the systems of philosophy display a profound subtlety of thought.

True it is that some recognition has lately been bestowed upon the study of economics in relation to Indian conditions, but no practical work in that direction has ever been attempted.

It is to be hoped that if the University encourages the establishment of the higher courses in commerce, agriculture, and technology some of the burning Indian problems of the day may be successfully tackled by its graduates in these departments.

D'SOUZA, P. G.

This may be done, to a certain extent, by the institution of studentships, research fellowships, etc. But the entire system of education has to be remodelled with less insistence on examinations.

DUKE, W. V.

The existing system of appointing text-books very effectually kills any intellectual curiosity which may have been latent in students at the beginning of their academical career.

DUNNICLIFF, HORACE B.

I would recommend that Government should help to finance hopeful students who have a penchant for a particular subject and have shown that they possess sufficient ability to profit by special training. Here also the advice of the candidates' teachers should be sought. It should not be incumbent upon Government to award a fixed number of scholarships in a year or that they should be perquisites of any particular university. The number of such scholarships should be dependent upon the number of fit applicants. Few scholarships might be given in one year and many in another; many might be given in one university and few in another. There should be no specified limit. The only restriction should be that, if no suitable applicant was forthcoming, the money could be set aside for the financing of some student in a year when an unusually large number of suitable candidates applied.

By this suggestion I do not mean to imply that every man who feels he has a bent for a subject shou'd be given financial assistance but that, if in any particular year there is a large number of good candidates, want of money should not stand in the way of their progress. A certain number of good men *after showing they have aptitude for the selected subject* should be given facilities for study abroad.

The selected candidates could be spread over various places at which facilities for a given line of research are offered. In this connection *vide* answer to question 7.

I am laying particular stress upon the importance of technical research because I consider it to be a most pressing necessity. I do not in any way disparage academic research (*i.e.*, research as applied to problems of academic, rather than of practical, value). Both kinds of research are essential but at the present time, I would lay stress upon the importance of investigations which will help to organise and develope the economic

resources of India. It appears to me that there are indisputable advantages in the principle and practice of probing economic problems relating to India in India. Hence, I suggest the institution of plenty of research scholarships to be held in India.

So far as the Indian research student is concerned my experience is that he does not often start with an idea of his own. He has that given to him by his professor. He starts work and usually gets keen on his subject. For a long time he is too apt to rely upon the suggestions of his professor, but the average research student I have met is very modest and conscious of his shortcomings. He is a "trier". That is always hopeful and if, at times, he seems to fall short of that degree of curiosity and speculation which is the natural stimulant of the original investigator, I feel that it is a sense of his own unworthiness rather than a lack of ambition that is at the back of his reticence in expressing opinions and making suggestions which he feels may be wide of the mark. In the Punjab University candidates for the M.Sc. degree in chemistry have to present an original thesis in addition to their papers and practical test. They get very keen and often work on college holidays and Sundays. The layman may scoff (and frequently does) and question the *practical* value of the work turned out. Even the research chemist cannot run before he can walk, and it is the training which is doing him so much good. In many cases the publishable or practical value may be small, but the spirit of enquiry has been awakened and the practical teacher, as well as the students, has some reward for his labour. There is always the hope that, after leaving college, the student will apply his knowledge to the solution of some problem which will benefit India and his fellow-men. (There is no reason why, under suitable guidance, he should not study a problem of practical interest for his M.Sc. thesis.)

Very few Indians help education or the cause of national progress in this matter. Very many technical works in India do not employ a single chemist. They do not appear to recognise that it is an asset to have such a trained man in their works.

Government should set the example by setting up works and demonstrating the fact that a factory worked on scientific lines is more successful than one which is conducted empirically.

DUTT, REBATI RAMAN.

I have already said in answer to question 1 that research can prosper only when suitable provision is made for research students and the professor himself is imbued with the spirit of research. But the prime condition of any rapid progress in research is the existence in the country of a widespread and genuine intellectual curiosity. Research or discovery of a new truth or new relation is the highest fruit of intellectual culture and, as it is true of nature that no lotus can grow in dirt or cow-dung, so no research can grow unless there be the utmost widespread diffusion of knowledge. The educational hero seeks the highest reward of his countrymen's applause, and upon that alone he may live to die in his work.

DUTTA, PROMODE CHANDRA.

There has always been a disinterested love of knowledge among our students (witness the *tol* pandit). But the higher university teachers of the past generation (who were almost exclusively Europeans) did not consider Indian students fit for research work and, hence, they did not encourage research. They did not themselves do any higher work either. The condition has changed now and, thanks to the efforts of some Indian and European professors, our students are now carrying on investigation in many fields. There is some fault in the existing system, but the greatest drawback is the want of real masters who could sympathetically help students. The highest teachers should not only know their subjects—which is not always the case now—but they should also be sympathetically disposed towards their pupils. This sympathy is said to be at a discount in European professors and, hence, proper regard must be had in the selection of post-graduate European professors.

GANGULI, SURENDRA MOHAN—GANGULI, SYAMACHARAN—GEDDES, PATRICK.

GANGULI, SURENDRA MOHAN.

The University should encourage independent investigation into Indian and other problems by its alumni by granting suitable scholarships to them. The continuance of these scholarships should be made subject to proper tests. The chief root of such work is certainly the existence of a widespread and genuine intellectual curiosity among students, but the existing system does not create such curiosity.

GANGULI, SYAMACHARAN.

Opening out of careers for those who can carry on independent investigations is the thing needed, I think. Genuine intellectual curiosity does exist among students, and the existing system does stimulate such curiosity in a large measure, as is evidenced by the fact of a number of Bengali graduates now carrying on original investigation.

GEDDES, PATRICK.

In the course of a life mainly spent in investigation, [illegible], I have been increasingly interested in the psychology of research, and the means of utilising and developing talent. I am convinced that from A. B. C. to graduation, the mass and methods of conventional instruction on the whole have become well nigh as fully adapted to inhibit and sterilise these active faculties, as can be those of factories, barrack-yards, and prisons, on one hand, or those of pleasure-streets on the other. I cannot here enter into details; but in experimental practice, ranging from children to graduates, teachers, etc., I find my methods and conclusions in at least as frequent and general antithesis to the traditional and established ones, as are those of Mr. Holmes, in his well-known books, or those of President Stanley Hall. In such definite answer, however, to the heads of this question as space admits of, I may urge that since research and enquiry begins for every child in infancy, their various inhibitions, and especially that of undesired knowledge, should be removed, and suitable knowledge made desirable; as so easily may be done in the measure of our own interests, our grasp and view of knowledge, our scope and style of action, as also our insight and sympathy as regards the pupil.

Research has not one chief root, though intellectual curiosity be a deep one. The whole personality, with all its powers, must dive into research, and the more fully the better—from the child-like yet enduring delights of observation and of constructive activity to the maturest effort and even sacrifice. All the sciences are more emotional, and this even more socially as well as more individually, than their votaries and teachers commonly realise. It is with the full psychologic chord, of idealistic emotion, reasoned ideation, tried and selected imaginings, that discoveries are essentially made; and thereafter with a kindred spirit verified.

Again as universities, British or Indian, successively escape from their arrest in pre-Germanic phases, whether of Renaissance survivals, or of sub-Napoleonic examinational machinery, they naturally tend to enter the sub-Germanic phase, or dispersive investigation. Research thus becomes an end in itself, and thus only too easily loses perspective, and even sight of its own larger bearings. In the university revival to which I look forward after the war, and this specially as arising in and among the French and Belgian universities which have most suffered—but also among the Allies, and even among the enemy also—I even anticipate a movement fully comparable to that of the Renaissance and the Reformation, and that of Germany in Napoleon's time, and that of France since 1878. I am confidently hopeful of distinct advances towards evolving post-Germanic types of universities, variously regional, synthetic and integral. With these, research will be increasingly socialised and applied towards reconstruction, but this in no merely material or utilitarian spirit, but moralised and democratised on one side, yet far more intensive, yet philosophical, on the other. The needed promi-

GEDDES, PATRICK—*contd.*—GHOSA, PRATAPCANDRA—GHOSE, Sir RASH BEHARY—GHOSH, BIMAL CHANDRA.

nence of applied sciences in the reconstruction movement need not alarm us. Engineering will be more harmonised with agriculture and rural development; and both with public health, with civics, and with education; and thus that long ascendancy of the older faculties of predominantly senile and dogmatic clergies, predominantly formalised lawyers, and predominantly authoritative administrators, to which the arrest of English-speaking universities has been so much due, will be counterbalanced; and even these old faculties will be progressively transformed.

More precisely, the modern movement of research into all the dispersive and unco-ordinated specialisms of the encyclopedia and its derived "Faculty of Philosophy" and Germanic University generally, is not the last word of the research movement, as many nowadays think; but rather the first. The mind of India, with its philosophic and religious background, will be better aroused to the modern needs of research in every specialism, when these are no longer viewed as detached—as dis-specialisms in fact; but presented in their relation to the needs of practical life on one hand, and yet more to those of synthesis and ideals on the other. With such aims specialisms will indeed be cultivated, and more than ever, but now as con-specialisms, as we may call them. In this passage, from dis-specialisms to con-specialism, a new world of research is opening everywhere and the post-Germanic university is arising with it.

GHOSA, PRATAPCANDRA.

There must be:—

(*a*) A higher standard of morality and a widespread and genuine intellectual curiosity.

(*b*) The existing system simply makes education mercenary.

GHOSE, Sir RASH BEHARY.

Steps should be taken to encourage and stimulate independent investigation among the alumni of the University and, for this purpose, scholarships and endowments should be liberally provided. It is essential that study in each department should be moulded and adjusted with special reference to Indian problems. I hold that the mainsprings of original research and investigation is the existence of a widespread and genuine curiosity among students, and every effort should be made to create and foster such a spirit which the existing system hardly tends to arouse or develope.

GHOSH, BIMAL CHANDRA.

There is a great deal of curiosity—genuine intellectual curiosity—among our young men, but the present system seems to depreciate it and hinder its growth. The want of "freedom in teaching" and "freedom of study"—too long syllabuses—too many lectures a day—too large a percentage of attendance exacted—leaves very little time and opportunity to students.

(*a*) For the encouragement and stimulation of independent investigation the first thing to do is to invite workers of proved merit and ability to join the colleges or the University as lecturers or readers, and to place them in such a position that young students of ability may be inspired and guided by them. This is being done by the post-graduate council just founded, and should be accepted as a principle on which all the colleges would be expected to work.

(*b*) Colleges should encourage the establishment of literary, philosophical, and other learned societies where local workers—when they are not on the staff—would be brought into close association with teachers and students alike.

(*c*) Prizes and scholarships should be founded, encouraging investigation of local problems—the fauna and flora of the country around, the archæological and historical interests of the district.

GHOSH, BIMAL CHANDRA—*contd.*—GHOSH, Rai HARI NATH, Bahadur—GHOSH, JNANCHANDRA—GAOSE, JNANENDRA CHANDRA—GILCHRIST, R. N.

(*d*) The establishment of a library and a museum dealing chiefly with local interests.
(*e*) Promising alumni of a college may be sent for post-graduate studies to the central seat of the University or to other universities for the study of questions allied to their special line of work and be elected to fellowships or bursaries on their return, to start them on their particular investigations.

GHOSH, Rai HARI NATH, Bahadur.

More research scholarships and library and laboratory facilities are suggested. Yes; it has been helping that way.

GHOSH, JNANCHANDRA.

Every subject should be studied from the point of view of Indian conditions, and provision should be made for research scholarships in each subject.

GHOSH, JNANENDRA CHANDRA.

For the development of genuine intellectual curiosity among students I would advocate the compulsory introduction of the system of colloquium as it exists in Germany. According to Professor Küchler "its value is inestimable and the introduction of the system, wherever there is a sufficient number of students and others interested in scientific research, cannot be too warmly advocated. In the older form, the paper generally dealt with some original matter on the part of the author, and such original papers are still included in the colloquium at a large number of the universities. There can be no question, however, as to the greater benefit arising from the mere reproduction of the most recent work done elsewhere, not only on account of the larger field for selection which it offers and the unique opportunity which it affords for becoming directly acquainted with the latest development of science, but also on account of the free and more searching criticism to which a paper would naturally be subjected when the writer is not directly responsible for the matter contained therein." [*Indian Education, Occasional Reports, No. 4.*]

GILCHRIST, R. N.

Apart from the work which students may be encouraged to do by their teachers, under the guidance of the teachers, I do not think that the University should undertake the organisation of research till it is able to perform its more essential duties efficiently. The present system does not help the growth of intellectual curiosity among students, and it can do so only by giving more independence to both teacher and taught. Where the degree courses are marked out to the exact pages of books to be studied students are not encouraged to work out problems by themselves in their own way, a fact which is painfully obvious in a subject like political science where the essays written by students are, as a rule, direct reproductions, with occasionally a little paraphrasing, from text-books or encyclopædias. The ignorance of English on the part of the average student also prevents his attempting work on individual lines. Apart from the general improvements necessary in the whole educational system the development of the colleges, whereby the colleges will have a considerable amount of freedom, seems essential.

Regarding the creation of specialist institutes I agree with the ideas laid down in section 73 of the Haldane Report. The setting up of specialist institutes within the University would be an attempt to build the steeple not only before the church is roofed, but before its foundations can bear a steeple. The encouragement of private

GILCHRIST, R. N.—*contd.*—GOSWAMI, BHAGABAT KUMAR, Sastri—GUPTA, BIPIN BEHARI—GUPTA, UMES CHANDRA—HALDAR, UMES CHANDRA—HARLEY, A. H.

foundations for such work is, of course, a different matter, but I consider, too, that if private foundations are available, and are capable of guidance, they should be given for more essential university purposes.

The provision of scholarships for students continuing work under their teachers, or independently, and scholarships for study abroad, should continue as at present. For our best students I consider that scholarships for work abroad are advisable for several reasons :—

(*a*) They are more economical, as India cannot afford first-rate professors of established reputation, or first-rate equipment.
(*b*) They are more efficient, as the medium of work in the West is far better than the local medium.
(*c*) They are necessary educationally, as for the advance of India it is essential that we have a large supply of workers with Western experience.

Only by a long process will our local University achieve a standing in the university world, and to help in reaching such a position Indians trained in the West are necessary.

GOSWAMI, BHAGABAT KUMAR, Sastri.

Unless conditions are introduced to utilise such investigations to promote the best interests of the country it is useless to expect much enthusiasm for such work.

GUPTA, BIPIN BEHARI.

If students are released from the grinding routine work of the class periodically, and are permitted to accompany their professors on tours abroad, an entirely new complexion can be put upon the teaching of geography, botany, geology, and political economy. The intellectual curiosity may be easily created if the rigidity of the present system be relaxed. There is plenty of genuine intellectual curiosity among students, but no advantage has been taken of it.

GUPTA, UMES CHANDRA.

As to the first part of the question I am unable to give any reply for want of knowledge in the subject; as to the middle part my answer is " yes "; and as to the last part " no."

HALDAR, UMES CHANDRA.

Scholarships on a large scale should be established by Government and the University, tenable for five years, so as to attract the best arts and science graduates to carry on research work under the guidance of eminent professors. Professors of colleges also should be given sufficient opportunity to carry on independent research work. They should not be called upon to deliver more than ten lectures in the week. A number of prizes for research work should also be awarded. The number of existing scholarships is very small, and their small value—₹100 each—is not sufficiently attractive to men of genius to devote themselves to such work.

HARLEY, A. H.

It appears to me that there is a considerable interest in the investigation of Indian and foreign problems among students, and there is not so great a necessity for stimulating such interest among students as for appointing to the staff of the University professors

of experience and ability who have pursued their studies far beyond the text-books in the course and have shown themselves capable of original work.

The present system is frequently criticised on the ground that it has permitted members of the staff to squander their energies whereas, as a rule, the best results have been secured by those professors who have devoted themselves entirely to their own researches and their classes.

HOLLAND, Rev. W. E. S.

My answer to the third question under this head is an emphatic "No." My reasons will be found in my answer to question 1.

HUNTER, MARK.

I agree that the existence of a fairly widespread and genuine intellectual curiosity is the chief root of independent investigation. I consider that such courses as the honour courses in arts in the University of Madras are calculated to create and stimulate such curiosity; in any case they cannot well retard it. It should, however, be recognised that students, if they are not men of means, cannot afford to cultivate intellectual curiosity to any great extent after the degree course, unless the curiosity can be gratified without prejudice to their material interests and family duties. One cannot expect Indian youths—or any other youths—to sacrifice themselves, and their parents' wishes for them, unreservedly on the altar of science. One may institute research scholarships but, unless these are to lead definitely to further work along the same lines, one must be prepared to find them largely regarded as convenient halting-places from which the research student can look round for a job.

There are, I believe, an increasing number of young men, products of the higher university courses, who, if an honourable competence were assured them, would prefer the life of a student to more remunerative careers in which their talents might seem to promise them success. I think a good deal could be done for original investigation if such young men were recruited for professional work in Government colleges, appointment being confirmed only after two or three years' probation, and on evidence furnished of ability to do original work. Some moderate amount of teaching should be required. Confirmation should mean appointment to the status of a gazetted officer.

HUSAIN, The Hon'ble MIAN MUHAMMAD FAZLI, Khan Bahadur.

There is no widespread and genuine curiosity, but this is not altogether the fault of the University system. The spirit of enquiry is imbibed in childhood and in early years of school life, and neither the Indian nursery nor the primary school are presided over by those who would develope a spirit of enquiry; on the contrary, both do their best to stifle it.

At present, the only way to develope a spirit of enquiry is to bring students in contact with the great scholars of the West, and I believe this personal contact gives very good results.

HYDARI, M. A. N.

The higher degrees should make independent investigation into Indian problems an essential feature of the course. The existing system does not create and develope widespread and genuine intellectual curiosity among students.

IMAM, The Hon'ble Justice Sir ALI—Indian Association, Calcutta—IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI—JALIL, ABDUL.

IMAM, The Hon'ble Justice Sir ALI.

Intellectual curiosity was regarded by the Greek philosopher as the philosophic passion. Intellectual curiosity regarding political problems can be cultivated successfully only by people who can control their politics.

This cannot be said to be the case in India. But the great ferment that has been going on in the country has resulted in creating among educated men a great and growing interest in political problems as a result of the great spirit of nationalism that has arisen in the country. The Indian universities have only within the last few years come to acknowledge the widespread existence of this great passion among our young men and attempted to facilitate and control it by providing lectures and awarding degrees on the subjects in the M.A. and the B.A. courses. A few good books on the subjects have been written by educational men, notably one by Professor Kale of the Fergusson College. The Calcutta University has provided a post-graduate lecturer, and I am told that Professor Manohar Lal's lectures in Calcutta were attended largely by post-graduate students and also by some public men. The difficulty is that the study of Indian economics is yet carried on on English lines, which are not suitable to Indian conditions. Italian books and some of the American writings on the subject are akin to Indian conditions and, if American professors were invited to India, the study of the subjects would be greatly facilitated.

Indian Association, Calcutta.

There should be well-equipped and well-organised libraries, with librarians who can help students with useful information about books. Prizes and scholarships should be given for investigation into different problems. The result of the investigation should be published in periodicals if a special journal for this purpose cannot be afforded. An investigating attitude of mind should be developed in the student by proper and well-conducted courses of education in college. Mere intellectual curiosity in the student will not help this kind of work. There should be impressed upon the student the idea of some benefit derivable from the investigation of the problems. This benefit may be to the student personally or to the community at large.

Societies may be formed for the work of investigation and members may co-operate to solve problems that may arise. Free exchange of ideas among men devoted to the same work will create an atmosphere of eagerness and enthusiasm.

The present system, except in rare cases, does not rouse this attitude of mind.

IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI.

Broadly speaking, there is greater need in this country for diffusion of knowledge and less for concentration of energy upon particular subjects. If there is a wide diffusion of knowledge persons who show an aptitude for special research will naturally follow the bent of their mind and enter institutes or colleges where full scope can be given to their intellectual aptitudes and aspirations. A nationally diffused life and thought is a condition precedent to creative intellectual effort. Education imparted in the lonely seclusion of the class-room, with the examination as the sole test of efficiency, is hardly conducive to the awakening of genuine intellectual curiosity. Educational methods must be so remodelled as to bring the pupil in touch with the realities of life and nature and subject him to the discipline of daily observation and experiment.

JALIL, ABDUL.

Good libraries, laboratories, provision for scholarships, and an extensive industrial field are recommended for the encouragement and stimulation of independent investigation into Indian and other problems among the alumni of the University.

I hold that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity among students.

The existing system does not create and develope such curiosity.

KHAN, MOHOMED HABIBUR RAHMAN.

The award of prizes and scholarships to those whose independent work is a real contribution to our knowledge.

KO, TAW SEIN.

The present system does not create and develop such curiosity among the alumni of the University. The great majority of them join the University for a career in life, and they have neither interest nor leisure for research work, which is outside the limits of their legitimate studies. If the existing curriculum is pruned down more spare time will be available; and if no commercial value is attached to university degrees for posts under Government students who remain will be inspired by the academic value of learning.

LAHIRI, GOPAL CHANDRA.

My answer to the first part of the question has been given in answer to the first.

A genuine intellectual curiosity would be the best condition for independent research work. But, as has been already remarked, the present arrangements are not calculated to generally create and sustain such curiosity. Even if it were induced there is no adequate library or laboratory which may help students to satisfy it. Nor are their sufficient State or university scholarships upon which students may depend for the carrying on of their investigations.

LAHIRY, RANOJIT CHANDRA.

Certainly intellectual curiosity is the chief factor in all progress. There is very little scope of arousing this curiosity in the existing system. The introduction of the ideals suggested in question 2 would gradually arouse the curiosity.

LANGLEY, G. H.

If efforts were made to select the most promising students, and afterwards to give them a sound education, some of them would naturally begin to work ndependently. The only way to encourage independent investigation among the alumni of the University is to bring students under the influence of teachers who themselves have the power of carrying on independent researches, and have sufficient leisure to work at those branches of their subjects in which they have special interest.

The existing system certainly does not create intellectual curiosity among students.

MAHALANOBIS, PRASANTA CHANDRA.

The teaching in the M.A. and M.Sc. stages must be quite free. In the existing system this is not attainable.

The huge overcrowding in post-graduate classes must be prevented. The great bulk of our post-graduate students studies for the M.A. and M.Sc. degrees as a matter of socio-economic necessity. It is desirable that only those students who are genuinely

MAHALANOBIS, PRASANTA CHANDRA—*contd.*—MAHTAB, The Hon'ble Sir BIJAY CHAND.

interested in advanced work should enrol for post-graduate work. But *no artificial* mechanism would secure this.

At present, there are *four* chief classes of students who attend M.A. classes :—

(*a*) Those who do so merely in order to increase their qualifications for securing *non-academic* posts. It should be possible to divert the whole of this class by the provision of suitable *specific* education in the chief vocational subjects.

(*b*) Those who want the M.A. or M.Sc. degree in order to secure higher posts in the secondary *schools*. Adequate provision for professional training in teaching should relieve considerably the congestion due to this class. But a certain proportion of post-graduate students may be recruited from this class.

(*c*) Those who want to take up academic work in the University as lecturers and professors.

(*d*) Those who are interested in research work or advanced study for its own sake.

Post-graduate teaching should be shaped to meet the special requirements of the two last-mentioned classes only, and for these people full academic freedom of teaching and of study is essential.

Research scholarships are urgently necessary. In every university such endowments form the nucleus of all advanced work. It is a matter of economic necessity for most people to begin to earn at least a part of their living immediately after finishing their university education. The University Congress of 1912 was almost of unanimous opinion that adequate provision of scholarships, stipends and grants is the only effective method available for the organisation of research work. In our University there is scarcely any provision for this. At the present time, scholarships are urgently necessary for those students who have finished their M.A. and M.Sc. courses.

In this connection, it should be remembered that, in awarding such research scholarships, the degree of success in any examination should *not* be the only criterion.

My own experience in the physics department has been that often the student who tops the class list in the M.Sc. is *not* the most suitable man for receiving the research scholarship. In awarding research scholarships the judgment of the actual tutor of the candidate should be relied upon to a greater extent than the examination results.

It is also desirable that some scheme should be devised for utilising graduate students (I mean particularly those who have taken their M.A. or M.Sc. degree) in the teaching work of the University. In this way it would be possible for students to earn something and, at the same time, to go on with independent research work.

The existing system must be radically changed if it is considered desirable to encourage research work. I am very strongly of opinion that the little research now going on is not because of, but wholly in spite of, the existing system of instruction. In fact, it is surprising and gratifying to find that even so much is being done.

MAHTAB, The Hon'ble Sir BIJAY CHAND.

There should be a paper in the M.A. and M.Sc. examinations on Indian problems relevant to each subject, and scholarships should be given to the most successful candidates for carrying on researches in their respective subjects for some years after passing the M.A. or M.Sc. examination. But nothing short of genuine intellectual curiosity can give the desired effect in the study of these problems. Prizes and scholarships are simply the means to carry out individual desires, and more particularly so in the case of those who, in spite of their desire to investigate these matters, are prevented from doing so owing to pecuniary difficulties. In every case, however, the prime-mover is the will or curiosity to know. I do not think that the existing system of education creates and developes this curiosity. Students are taught simply to answer the questions of the University, and they generally aim at obtaining a university degree so that they may qualify themselves for some appointment or other. Nothing beyond this seems to be in their view except in the case of rare individuals who, irrespective of any academic influence, have an inborn taste for such studies.

MAITRA, AKSHAY KUMAR—MAITRA, GOPAL CHANDRA—MAITRA, HERAMBACHANDRA—MAJUMDAR, PANCHANAN—MAJUMDER, NARENDRAKUMAR—MASOOD, Syed ROSS.

MAITRA, AKSHAY KUMAR.

For the encouragement and stimulation of independent investigation into Indian problems among the alumni of the University I should recommend fellowships, stipends, and pensions. The chief root of such work must necessarily be the existence of widespread and genuine intellectual curiosity among students. Such curiosity cannot, however, be adequately roused in them so long as teaching remains subordinated to examination, producing an inevitable intellectual inertia. Sustained intellectual curiosity leads to investigation and discovery. But such curiosity cannot, at present, be roused in students because they can ill-afford to devote their time to any work which will not be immediately fruitful. It cannot be roused in after years when they take part in the battle of life with an inevitable intellectual dyspepsia due to unassimilated training in the University. Those Indian graduates who are exceptions go only to prove the general rule. Their services should be recognised and utilised for the advancement of learning, which should not only be the formal, but also the actual, motto of the University.

MAITRA, GOPAL CHANDRA.

Chairs for original research may be founded to which scholars who have done some original work in their subjects should be appointed. These professors should be associated in their work with some advanced students who, in their professor's opinion, are capable of independent investigation.

Due encouragement should be given to the members of the teaching staff of the affiliated colleges who have proved their aptitude for research work. This encouragement may take the form of suitable remuneration to ensure professors sufficient leisure for their work.

MAITRA, HERAMBACHANDRA.

It must be admitted that "genuine intellectual curiosity" is confined to a very limited number of our students. In order to promote it we require a much wider spread of education, the creation of a large number of research scholarships by the University, and a liberal recognition of merit by Government and by the University.

MAJUMDAR, PANCHANAN.

I think State scholarships and stipends should be allotted for the purpose. Curiosity is, no doubt, a chief factor, but some further inducements are necessary.
It does not do it adequately.

MAJUMDER, NARENDRAKUMAR.

The existing system does not create, or seek to develope, the taste for an independent investigation into Indian problems. The ideal is attainable not before courses are reorganised and books recommended with an eye to the satisfaction of local, regional, and national needs and requirements.

MASOOD, Syed ROSS.

The award of prizes and scholarships to those whose independent work is a real contribution to our knowledge.

MAYNARD, The Hon'ble Mr. H. J.—MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur—MITRA, RAM CHARAN—MITTER, Dr. DWARKANATH.

MAYNARD, The Hon'ble Mr. H. J.

Intellectual curiosity is like physical hunger. It does not exist for the overfed or even for the overtired. The teacher is tired, and the pupil is tired: and the latter, who hears 20—25 lectures a week is gorged to repletion, even before the final process of cramming his notes and his text-books (which takes place for a month or more under all eyes in the public gardens of Lahore) is undertaken. Some peace, some leisure, some contact between the interested mind of the teacher and the interested mind of the student are necessary to create the atmosphere in which intellectual curiosity flourishes.

In my answer to question 1 I have indicated what seem to be the first condition of a change for the better; differentiation, with a better kind of teaching for the more able, a less overwhelming syllabus for the pass man, and the resultant increase of freedom and interest for the teacher.

As noted in the answer to question 7 research is in progress at the Agricultural College of Lyallpur (which is now being affiliated). It is also in progress in the King Edward Medical College and, in some measure also, in the Biological Department of the Government College, Lahore, where the professor of zoology has founded something very like a real school of enquiry in a particular branch and the professor of botany has a reputation which extends outside of India. In agriculture, and probably also in medicine, the Government departments concerned can be trusted to see that there is leisure and opportunity for research: but not necessarily that the student sees and follows the process. With the materials available in the Punjab it ought to be possible to do something for research in Indian history and archæology and, later on, for engineering, particularly in connection with hydraulics, of which our great canal systems furnish abundant illustration. Without having any definite programme in my mind (beyond the idea of some further development or improvement of the thesis as a qualification for certain degrees) I think it is the function of the University to see that study should become in a less degree mere acquisition, and in a greater degree research and original work. But outside of a few institutions we probably have not as yet the right spirit in our teachers, with whom the tradition of memorising, as the sole source of knowledge, is still all-powerful. The development of the University on its scientific side *e.g.*, by the affiliation of the agricultural college, seems to me full of hope, and I would endeavour to inspire the student by bringing, as visitors* or occasional lecturers to the University, men (particularly Indians) who have been successful in research.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

Post-graduate education is necessary. Experts from foreign countries should be appointed to guide students in making investigations. Mining should be taught.

MITRA, RAM CHARAN.

The existing system is not adequate to create any intellectual curiosity among students. But, should all the branches of study be centred in the same area, and students meet in the common room or open yard in clubs, etc., a widespread and genuine curiosity may be the result.

MITTER, Dr. DWARKANATH.

Chairs and research scholarships should be endowed by the University for the encouragement and stimulation of independent investigation into Indian and other problems among the students of the University and, in making nominations for these

* *e.g.*, to deliver the annual convocation address.

chairs, preference should be given to the alumni of the University. To this end students in the colleges should have their attention directed to the observation of the conditions prevailing in the country—economic, social, sanitary, or hygienic—so that after they have finished their general education a genuine intellectual curiosity may easily be aroused in them to pursue investigations in those subjects or problems for which they might evince a natural aptitude. What is required, in particular, is that they should be impressed at an early stage of their career with the importance of the problems. I hold that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity amongst students. The existing system is just beginning to create and develope such curiosity.

MITTER, The Hon'ble Mr. PROVASH CHUNDER.

I would grant fellowships or research scholarships to the best students after they have completed their post-graduate studies. I would also insist upon their publishing the results of their investigations.

Yes; the existence of a widespread and genuine intellectual curiosity is the chief root.

No; the existing system does not create nor develope such curiosity because mainly of the mixing up of different types.

MOHAMMAD, Dr. WALI.

The chief causes of the absence of genuine intellectual curiosity among Indian students are to be found in the scarcity of really able and good teachers capable of inspiring their pupils, in the tyranny of examination by external agencies, in the lack of good libraries and laboratories, and, above all, in the absence of freedom of teaching and the freedom of learning. The rigid, lifeless, and wooden system of our universities leaves no room to an original teacher to found a school of thought or a school of research. As said above, political and social reasons also stand in the way of stimulating independent investigation. So long as the universities are dominated by racial quarrels or by sectarian and political views search for truth becomes a misnomer. What is a university if it is not permeated by a deep respect for a free and independent conviction? There can be no academic freedom if the inquiring mind is restrained from investigating those principles which are declared to be beyond the range of discussion as forming the foundation of the political, social, and religious organisation.

As an example, it may be mentioned that the study of Indian economics and history offers vast and rich fields of research. The moment such studies are undertaken either the prestige of a certain class is threatened, or the religious feelings of a community are hurt. In scientific investigations not even the professors of Government colleges are ever called upon to undertake some investigation in which the State may be interested.

When the defects mentioned above have been removed it would be found necessary to endow a large number of research studentships and create fellowships. Special grants should be made for investigations in the various subjects, and every encouragement given to an original worker.

MUKERJEE, ADHAR CHANDRA.

The University should institute fellowships and research scholarships for the purpose.
Yes.
No; the existing system rather kills it.

MUKERJEE, Dr. ADITYANATH—MUKERJEE, BIJOY GOPAL—MUKERJEE, RADHAKAMAL.

MUKERJEE, Dr. ADITYANATH.

There can be no encouragement and stimulation of independent investigation among the alumni of the University unless suitable fields of employment be widened to provide some scope for their ambition. I would, therefore, recommend that the superior branches of the public services, the services on which Government can exercise sufficient control, be opened up to the most brilliant and capable graduates of our universities. Such services should include the engineering and electrical departments of Railways and Telegraphs, Government and the Mercantile Marine, the Forest Department, the Archæological Department, the Departments of Mining and Geological Survey, of Sanitation, Public Health and Civil Hospitals, the Veterinary Department, and the like.

Our universities should, at the same time, be made self-contained in the sense that, ordinarily, our graduates will not be expected to proceed to a foreign university to 'complete' their education. At present, a value—often fictitious—is attached to degrees or qualifications, not for their intrinsic worth—for nobody thinks it necessary to scrutinise them—but solely because they are foreign. This is most deplorable as it casts an undeserved slur on the local universities. Unless the status and dignity of the universities be raised and assured, and the timidity of their alumni thus removed, independent investigations would not be readily forthcoming, for such works are, as local products, branded with an inferior mark.

This reply may kindly be read along with that to question 1.

MUKERJEE, BIJOY GOPAL.

If there is not much intellectual curiosity in actual evidence in Bengal it is not the existing system that is at fault. In order that this curiosity may operate as a powerful incentive to painstaking research it is essentially necessary that there should be a sufficient number of fellowships attached to the University to which, from an early stage of their career, some of its most promising students might look forward as a means of freeing themselves from the ordinary cares and anxieties of life. While going through a course of general instruction they might then come gradually to a right decision about their future line of action and, according as they would develope a special aptitude for it, they might keep it steadily in view and specialise for it at the final stage of their academic career.

MUKERJEE, RADHAKAMAL.

One of the most unfortunate features of the present system is that, whether in the primary, secondary, or collegiate stage local and regional interests and problems are always relegated to the background. Students are stuffed with abstract theories which have seldom any reference to Indian facts and conditions with the result that life and its interests are subordinated to books and abstractions. Thus, learning ceases to be an enjoyment, and education becomes artificial and futile. In the preparation of the syllabus, and in the selection of text-books the colleges should be careful in emphasising an independent interpretation of Indian facts and conditions unbiassed by any preconceived theories. Futile specialisms and barren abstractions are holding the field to-day in a system of education which has completely isolated itself from the needs and problems of life. Nothing less than a complete revolution of the courses and syllabuses will lead to the reunion of regional and educational interests, without which education, at best, is a soul-killing drudgery, inhibiting genuine intellectual curiosity in the pursuit of empty and formal abstractions.

MUKERJI, SATISH CHANDRA.

The existing system of education practically kills even the natural curiosity of students. This curiosity should be developed in the minds of students from their school-days onwards by the teachers inviting them to study the town or the village in which they live. Students should be encouraged to make their own observations and draw the things that they see. Thus, they will practically write their own books, the teacher, as well as the printed books, serving as mere guides. (In this connection, it must be observed that such text-books for Indian students remain to be written.) Then, again, when arithmetic is taught problems set for solution will be taken from actual commerce and the everyday world of students. The course in mathematics, too, should be made very easy for general students. Much of the natural interest felt by students in learning a language is spoiled by the faulty methods of teaching now in vogue in our schools and can be, on the other hand, increased, yielding remarkable results in the student's progress if the modern direct method of teaching languages is introduced.

Then, occasional tours, walking tours, as well as railway tours, should be arranged by students, under the guidance of teachers, who will see to it that students study the new places with reference to their geography and history, as well as the men and manners of those places. In and about Calcutta there are many public institutions like the Indian Museum and many mills and factories which should be visited by students under the supervision of teachers.

MUKHERJEE, B.

The following steps may be suggested:—

(*a*) Provision of adequate scholarships. At present, both the amount of scholarships and their number are limited. There are more scholarships available in science subjects than in arts subjects. The problem is essentially one of finding an adequate supply of money. The recent endowments of Sir Tarak Nath Palit and Sir Rash Behary Ghose have done much to increase the number of scholarships available in science subjects.

(*b*) The recognition of a claim either to appointment or to promotion in the Government educational service in the case of those who can successfully conduct or conclude independent researches or investigations. A research scholarship ought really to end in a professorship.

(*c*) The transfer of Government research scholarships from the hands of the Director of Public Instruction to the hands of the University.

(*d*) Provision of real facilities for research in the shape of books, journals, libraries, travelling allowance, etc. A research scholarship is a sort of a living wage to the scholar—a sort of subsistence allowance— to enable him to live without care during the time he is carrying on his researches. Now, the amount of scholarship that is ordinarily granted is not very great. Proper research, on the other hand, demands a heavy outlay in books, journals, reports, travelling, etc. If the research scholar is to meet all these expenses himself he will have very little left to himself. The result is that he is compelled to restrict his outlay on these lines and his work suffers.

(*e*) Each research scholar should be placed under the charge of a professor and his control over the scholar ought to be something real, and not merely nominal, *e.g.*, passing the scholarship bill once in three months. The professor ought to see that the scholar is *really* working and on right lines.

It is certainly true that the chief root of research work must be the existence of a widespread and genuine intellectual curiosity among students, and I have no reason to suppose that the existing system does not create and develope such a curiosity in the minds of able students.

MUKHERJI, PANCHANANDAS—Murarichand College, Sylhet—NAIK, K. G.

MUKHERJI, PANCHANANDAS.

Philosophy, history, and economics on the arts side should be studied and taught with special reference to Indian culture and Indian conditions; special chairs should be endowed for investigation and instruction in Indian philosophy, mediëval and modern Indian history, Indian economics and administration, and comparative study of Indian languages and literature.

Scientific investigations (*e.g.*, in commercial chemistry, scientific agriculture, etc.), leading to the development and utilisation of the economic resources of India, should be undertaken and encouraged on a large scale by the University and Government.

The chief root of such work lies not only in the existence of a widespread and genuine intellectual curiosity among students, but also in the nature of the help afforded by the University in satisfying such curiosity. The existing system creates and developes such curiosity to a limited extent only. The holders of university chairs should be most carefully selected for it is their enthusiasm which must infect students and stimulate their curiosity; to satisfy this curiosity, again, the University should provide the fullest facilities for using the libraries in Calcutta.

Murarichand College, Sylhet.

Post M.A. scholarships in different subjects should be given. Government should see that successful scholars get preferential treatment in the matter of employment under Government.

The publication of a *Research Journal*, embodying results of the most recent advances made in other countries. It should contain translations and abstracts from French, Italian, and German journals.

NAIK, K. G.

The University tries its utmost, with the funds at its disposal, to stimulate independent investigations in the various branches of learning. But the efforts are limited by finance. Government should come to its help by the establishment of readerships for brilliant graduates, and ask them to do further work. Sir Tarak Nath Palit and Sir Rash Behary Ghose research scholarships have tried to fill up the want, and the work done by those scholars is of no mean order so far as India is concerned. But the helping hand of Government is wanting there too. Instead of wasting a lot of money in freak attempts to embrace many subjects independently these public revenues, if utilised economically, would create a real spirit of independent original research work. Taking the science departments of the Calcutta University colleges I may be allowed to point out that in chemistry only Dr. E. Watson at Dacca stirred up the hearts of students to do researches. The other European staff directly recruited from England have not, in any measurable degree, stimulated independent research. Dr. P. C. Roy created a school of chemistry, and he is a man of the provincial service. If we got first or even second rate men, we should not grudge the spending of such large sums on Government colleges. I am speaking of chemistry alone. Let it be clear that we would rather pay double the price, or more than that, for securing even one man of the type of Professor J. B. Cohen or Professor Soddy. If first or second rate men are not available it is much better to economise the lavish expenditure in Government colleges and start readerships under the one or two really able men in chemistry in the University and man the colleges, like those at Cuttack and elsewhere, with provincial people.

So far as science subjects are concerned I would establish an institute of science, composed of the best men of the University, who would form a board and decide to admit brilliant graduates as fellows of the institute only after a very difficult examination or a really good piece of research work. The institute may be on the lines of the Institute of Chemistry.

NAIK, K. G.—*contd.*—NANJUNDAYYA, H. V.—NEOGI, Dr. P.

The spirit of independent investigation would fast develope if school organisations provide nature lessons and excursions outside to create curiosity and develope powers of observation and inference.

NANJUNDAYYA, H. V.

The courses in the University should be brough into more intimate relation with actual Indian conditions and Indian and other problems. In the domain of arts (or humanities) more attention should be paid to the study of Indian history, economics as applied to Indian conditions, politics of England and India, and Indian literature. Indian philosophy should be studied with at least as much zeal as Greek and Roman philosophy.

Similarly, in the sphere of the sciences special attention should be directed to Indian needs.

Genuine intellectual curiosity must, of course, exist, and it should be stimulated much more than is done under the present system.

NEOGI, Dr. P.

I have already pointed out, whilst answering question 1, that the principal reason why the present system of university education has failed to arouse a spirit of research work is that research work has never been, until lately, recognised either as a legitimate duty of every professor or as the highest sort of attainment that a graduate may aspire to. The steps to be taken with a view to improve the situation would be of two kinds:—

(*a*) Steps with respect to college teachers.

(*b*) Steps with respect to students.

(*a*) *With respect to college teachers :—*

(i) *It should definitely be acknowledged by the University, the Government, and the college authorities that research work is as much a legitimate duty of every professor as teaching work.*—Hitherto research work has been regarded either as a fad or a hindrance detrimental to the interests of teaching, with the result that the colleges have mostly degenerated into so many machines for passing students in university examinations.

(ii) *Professors of science who have to work in laboratories for research work should be regarded as " half " professors and be given routine work of not more than eight hours in the week* so that they have enough leisure for actual manual work. The University inspectors of colleges should be definitely instructed to see that this rule is strictly observed by the college authorities by the appointment of the necessary additional staff.

(iii) In the case of new vacancies in colleges preference should *always* be given to those who have already shown some capacity for research work, such as research scholars, Premchand Roychand scholars, doctors, and Griffith memorial prizemen. As it is expected that the prospects of the educational services will be improved in the near future I hope it will not be difficult to attract them to educational work *en bloc*, at least in Government colleges. If this rule be strictly observed I am confident that the tone of at least Government colleges will surely be raised in the near future.

(iv) If any professor in a mofussil Government college who is engaged in research work finds that he will be more useful in Calcutta or other centres offering facilities for research work, such as libraries, laboratories, museums, etc., he should, on his own application, be transferred to such centres, as *it is obviously unwise in the best interests of education to allow such persons to stagnate in the mofussil.*

NEOGI, Dr. P.—*contd.*—North Bengal Zamindars' Association, Rangpur—PAL, The Hon'ble Rai RADHA CHARAN, Bahadur.

(v) The Government or the University should start a fund from which allowances should be given to competent workers for the purpose of defraying incidental expenses in research work, such as apparatus, special requirements, etc.

(vi) The Department of Geological Survey, Zoological Department, Botanical Department, Trigonometrical Survey, Agricultural Department, and other learned departments of the Government of India where research work alone is done are, at present, almost wholly manned, so far as higher work is concerned, by European graduates. The result has been that, owing to the lack of opportunities, research work in the higher departments of geology, botany, zoology, agriculture, etc. by Indians is non-existent. In future, the higher officers of these departments should be liberally recruited from Indian graduates.

(*b*) *With respect to students :—*

(i) The proposed system of appointment of professors with research qualifications in all colleges teaching undergraduate and graduate classes will certainly have a beneficent effect on students. *None can inspire a student for research work excepting one who is himself actuated by that inspiration.*

(ii) The number of research scholarships of. ₹100 per mensem granted for three years to M.A.'s and M.Sc.'s by the Government of Bengal should be raised from ten to twenty-five. The foundation of this system of research scholarships has been an epoch-making event in the history of research work in Bengal. I have myself been a research scholar and can personally testify to the fact that three years' probation in research work under a competent professor makes all the difference between two M.A.'s or M.Sc.'s, one of whom has not got that training and the other has been fortunate in getting it. It is to be remembered that *a research worker is not born—he is made.* The fact of the wonderful output of research work in Germany is that dozens of research scholars work under each professor, and the only degree granted by the German universities, *viz.*, the Ph.D. degree, is given on the results of research work. The past results in Bengal show that most of the research scholars have been doing solid pieces of work especially in chemistry, and their contributions now adorn the pages of European and American journals. The number of scholarships at present, however, is small specially on the science side, and should be raised at least to twenty-five so that a large number of such scholars may be trained up for the future educational work of the country.

North Bengal Zamindars' Association, Rangpur.

Encouragement should be given in the shape of a number of substantial special scholarships and by giving them access to well-appointed libraries and laboratories. Yes, students have developed such a curiosity, and the creation of a number of scholarships will attract more to the line.

The existing system does not sufficiently create and develope such curiosity.

PAL, The Hon'ble Rai RADHA CHARAN, Bahadur.

By the grant of scholarships, the continuance of which would be subject to satisfactory results, a genuine intellectual craving for knowledge for its own sake is, of course, essential. The existing system certainly does not tend to develope such curiosity.

PARANJPYE, The Hon'ble Mr. R. P.—RAHIM, The Hon'ble Mr. Justice ABDUR—RAY, JOGES CHANDRA.—

PARANJPYE, The Hon'ble Mr. R. P.

I do not think that there is a want of genuine curiosity among students. There are several such everywhere, but there are no opportunities for them, and very little encouragement to those, that do some work. There is no educated class with an amount of leisure and private means and all Indian students have to work for their living immediately after graduation. No time is left them for independent enquiry. If the universities were to encourage investigators by small grants to pay the expenses of such investigations, if there were a large number of scholarships with only a small amount of teaching work, and if some recognition in the shape of an honorary degree or lectureships were given I think more original work will be turned out. Colleges also should be encouraged to allow the members of their staff to do work of this kind. In all these matters the question of funds is almost the first that faces one as very few colleges can afford to pay a lecturer his full salary for a portion of his time.

RAHIM, The Hon'ble Mr. Justice ABDUR.

The Indian student, like any other student, starts with considerable genuine intellectual curiosity as anyone who really knows Indian children must admit. It is true, at the same time, that that curiosity is, in many cases, gradually killed in the schools and the colleges. The responsibility lies entirely with the system and the teachers. There are very few teachers who think it their business to understand the student, to help in the opening of his mind, and to encourage its expansion. It is also a most unfortunate fact that there is a complete lack of understanding and sympathy between some teachers and their students. Then, there is very little in the present surroundings of a student's life to stimulate his inborn intellectual curiosity; on the other hand, there is a great deal to deaden it. Further, the expansion of intellectual curiosity in children must also depend upon the growth of education in the community for children's eagerness to learn will be encouraged only in an educated home. It will be harmful to the cause of higher education in the country if, in the process of improving it, anything should be done to curtail its sphere. Improvement of the type of education should, therefore, go hand in hand with increase in the number of the educated.

RAY, JOGES CHANDRA.

The existing system does not create, nor can it develope, intellectual curiosity mainly on account of the rigidity of the examination system. Independent investigation requires time and freedom from the trammels of routine work according to a course prescribed for all. A school or college cannot grow and become a living institution where almost every detail is chalked out by another. I admit the need of general courses prescribed for all but, when an examiner sets questions from a text-book only, he necessarily limits the freedom implied in independent research. This remark is not true for, nor applicable to, all subjects. For the M.A. and M.Sc. more latitude is certainly allowed to students and teachers; but there is a direct encouragement to memory work, inasmuch as examinees are not allowed to consult books at the time of examination. The stock of knowledge has always to be carried in the brain in caskets of memory. This is hard work to accomplish now, and there is hardly any necessity for reverting to the old Indian method either for training or for learning. A student must possess general knowledge of the subject of his study, but need not memorise the details. The suggestion made will afford relief to students and give them time for independent research and thought.

RAY, MANMATHANATH—RAY, Sir. P. C.—RAY, SARAT CHANDRA—RAY, SATIS CHANDRA—ROY, The Hon'ble Babu SURENDRA NATH.

RAY, MANMATHANATH.

For the encouragement and stimulation of independent investigation into Indian and other problems among the alumni of the University the courses for the different departments of study should be framed with due regard to such problems. Such intellectual curiosity is to be roused not merely by the proper framing of courses, but also by the creation of research for scholarships and prizes. The existing mechanical system does not create and develope curiosity.

RAY, Sir. P. C.

Yes; I think that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity among the alumni of the University.

RAY, SARAT CHANDRA.

The first step towards the encouragement and stimulation of independent investigation is as follows:—

(*a*) Foundation of special lifelong scholarships.

(*b*) Absolute immunity from all restrictions in the matter of education in foreign countries.

(*c*) Facilities to be given by Government for carrying on such investigation whenever necessary.

There is, at present, such curiosity among students, but for pecuniary want they are compelled to give up their ideas. Yes; the existing system creates and developes such curiosity.

RAY, SATIS CHANDRA.

I confess that the existing system does not create and develope a spirit of curiosity among the alumni of the University, and that a widespread and genuine intellectual curiosity does not exist in this country. One of the causes of this lack of intellectual curiosity is that mentioned in my answer to question 2, *viz.*, the want of a genuine feeling among young men that they are an integral part of the "State", and are working for the State. This feeling cannot be created and fostered so long as the *de facto* State is not identified with the *de jure* State and remains divorced from the life and sentiments of the people. Up to this time, the *de facto* State has exercised a good type of paternal government, and has regulated all important matters affecting the life and well-being of the people, with the inevitable result that the spirit of independent action has been lost. Until the alumni begin to feel a real interest and participate in the highest field of activities of the State, and their work is valued according to the point of view of the traditions and civilisation of the people of the country, there is no hope of the creation and development of such an intellectual curiosity as is referred to in the question. It is an extremely uphill and artificial exercise of the intellectual faculties to work in one's own country according to strange methods, in a strange language, in a strange field, and with a strange angle of vision.

ROY, The Hon'ble Babu SURENDRA NATH.

I would recommend, for the encouragement and stimulation of independent investigation into Indian and other problems among the alumni of the University that

ROY, The Hon'ble Babu SURENDRA NATH—*contd.*—RUDRA, S. K.—SAHAY, Rai Bahadur BHAGVATI—SANYAL, NISIKANTA—SAPRU, The Hon'ble Dr. TEJ BAHADUR—SARKAR, BEJOY KUMAR.

research scholarships be given to meritorious students, and that their services be utilised in the development of the industries of the country.

I do not hold that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity of students.

I do not consider that the existing system creates and developes such curiosity.

RUDRA, S. K.

Institution of fellowships, research scholarships, and travelling fellowships.

The creation of these would stimulate interest in studies, and curiosity also. At present there is such little scope for students that the absence of interest and curiosity is not to be wondered at.

SAHAY, Rai Bahadur BHAGVATI.

For this purpose I would relieve the University of the men who go to it primarily for earning a living and this, I consider, the only condition of independent investigation, as well as of creating and developing a genuine intellectual curiosity.

SANYAL, NISIKANTA.

Intellectual curiosity can only grow in a favourable, *i.e.*, *progressive* environment. Great achievements in any field of Indian enterprise might stimulate such curiosity. It also requires for its growth a perfectly free atmosphere.

SAPRU, The Hon'ble Dr. TEJ BAHADUR.

I agree that the chief root of independent investigation in Indian and other problems must be the existence of a widespread and genuine intellectual curiosity among students, and I also think that the existing system does not create and develope such curiosity. The best of our students drift into law or public services. There is very little scope for really talented Indians in the Educational Department, and such desire as there may be among some of our students who are inclined to pursue a course of investigation is repressed by the fact that they know that the universities do not, and cannot, as they are constituted at present, afford sufficient opportunities to them for the cultivation of a spirit of investigation or research. I also think that the constitution of the Indian educational service has, to a great extent, retarded the growth of such a spirit. I do not see any reason why educational experts should be formed into a Government service. To my mind, universities in India should have their professors, lecturers, and tutors just as English universities have. I would also institute a certain number of fellowships to attract talented young men. It is in this way that I would stimulate genuine intellectual curiosity among students. So long as the best of our young men know that they can only play a secondary, and a subordinate, part in the educational institutions of their own country, as against English graduates, many of whom are by no means men of outstanding merit, I think it is vain to expect that the best of our young men should feel drawn to academic interests after they have taken their degrees in their universities.

SARKAR, BEJOY KUMAR.

The spirit of enquiry and independent thinking should be fostered from the very beginning of a student's career. This will automatically help to create and develope

SARKAR, BEJOY KUMAR—*contd.*—SARKAR, GOPAL CHANDRA—SARKAR, KALIPADA—SASTRI, KOKILESWAR, Vidyaratna.

intellectual curiosity among students. Though intellectual curiosity cannot be properly said to be the chief cause of original work it is certainly one of the helpful conditions for such work. The other causes which may lead to such independent investigations are love of work for its own sake, for name, or social service. The habit, training, and capacity for such work are also helpful conditions towards this end; and they may be developed amongst the University alumni by a well-devised system of teaching and examination. It is needless to mention that the existing system does neither develope the curiosity, the habit, nor the power for such work.

I suggest the following steps for the encouragement and stimulation of such investigation among the alumni:—

(*a*) The system of dictating notes should be stopped. Students must be made to read and prepare their own notes. This suggested change would develope in students powers of sustained work, concentration, and discrimination. Instead of remaining passive note-takers, as they are at present, they will become active listeners and followers of a subject. This will have both a moral and mental effect on students—moral, because of the satisfaction of having themselves done their work and the joy derived from the success of their own efforts; and mental, because of the training and discipline of their intellect due to active mental exercise.

(*b*) A much greater degree of attention should be given to talks and discussions than at present. Students should be made to take a larger part in these. The teacher should mainly regulate these discussions in the light of facts and logic, find out the shortcomings of students, try to excite their inquisitiveness, and train their judgment.

(*c*) Students should be made to prepare special topics on a subject and submit written reports. This would train them to collect, sift, and arrange materials. This work may be theoretical as well as practical. The student may be required, for instance, to write an essay on "The History of the Dutch East India Company", or submit a report on the conditions of labour, say, in the factories of Messrs. Burn and Co. There are hundreds of Indian problems to which the attention and interest of post-graduate students may be drawn. To ensure real work in this line marks should be allotted to these papers and they should partly count towards the degree.

(*d*) The teacher should have a maximum of freedom in the teaching and examination of his students.

SARKAR, GOPAL CHANDRA.

Original work by the alumni of the University may be encouraged by founding special scholarships and fellowships tenable in the colleges where such work may be carried on. The existing system does not offer much encouragement to independent work, neither does it create a genuine intellectual curiosity among students.

SARKAR, KALIPADA.

Institution of post-graduate scholarships, plus the "widespread and genuine intellectual curiosity among students", mentioned in the question itself.

The existing system creates and developes this curiosity only partially.

SASTRI, KOKILESWAR, Vidyaratna.

For independent research into Indian and other subjects the existing system provides the necessary encouragement and stimulation which may be expected in a fuller degree from the changes recently introduced for "post-graduate" studies.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur—SEAL, Dr. BRAJENDRANATH.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur.

I would advocate the creation of a special department for research work by the University, and not merely depend upon the spread of a genuine intellectual curiosity among students for the purpose. I would endow special professorships, fellowships, and prizes for the purpose. Something of the kind is being done under the newly-created system of post-graduate teaching, but much remains to be done.

SEAL, Dr. BRAJENDRANATH.

The following observations which I made recently when presiding at a university lecture on economics will throw light on what is being done by our Indian students in the matter of independent investigation into Indian and other problems in the domain of the humanistic and sociological sciences:—

> "The watchword of this new and rising school of Indianists is a corrected and extended historico-comparative method as applied to the sociological and the humanistic sciences, but this is a mere preliminary to the formation of universal sciences in these departments which will subsume the intermediate generalisations and formulæ, which are applicable to particular types and regions of culture, in principles of universal scope and validity from which it would be possible by the deductive method to descend again to the concrete domain of particulars and limiting conditions. This school of Indianists has in view two main objects which are closely related to each other. From the merely historical standpoint it seeks to extend the history of culture—philosophical, scientific, artistic—by pointing out the contribution of India to the growth and development of civilisation. This work, if successfully done, will for ever render impossible the narrow sectional view of human history which ignores the lives and life-values, the experiences, of more than half the human race, the Asiatic peoples and their social constructions and organisations, which are, in essence, not less real and significant than the Greco-Romano-Gothic consciousness and its works and experiences. This new historical school will point out the genius for social constructions based on communal and synthetic instinct of the Indo-Sino-Japanese civilisations, and will thus make it possible to utilise, in the coming era, the rich and complex data for human and social experiments which these Eastern forms and creations have furnished, and will continue to furnish, to the history of man and his making. But this is only one half of our task. The greater half of our work will lie in creating new schools of the sociological and humanistic sciences —schools of anthropology, sociology, and economics, of comparative psychology and comparative æsthetics, of comparative religion and comparative philology, of comparative law and jurisprudence, and, based on these, new schools of philosophy—sciences which will comprehend, in their universal range and synthetic unity, the partially co-ordinated bodies of provisional generalisations and limiting conditions which go by the name of these sciences to-day in the West, based as these are on sectional analysis and an incomplete collection and classification of facts. It will then be seen that in every science and every art, in which the data are concerned with judgments of value and validity, the Indo-Sino-Japanese consciousness, like every other regional consciousness, in the zones of cultural distribution, has still to contribute vital, enduring, pregnant truths, which are but conscious formulations of those aspects of the universe-idea which have been revealed to this group-mind from its angle of vision, and have been deeply embedded in its unconscious and sub-conscious strata."

The Indianists of this new and rising school "must be more scientific and modern than those who are now in possession of the field, and must cultivate in their mental temper and outlook the sovereign virtues of intellectual thoroughness, honesty, and sincerity, a consecration to scientific ends, and a whole-hearted devotion to philosophic truth".

SEAL, Dr. BRAJENDRANATH—*contd.*—SEN, PRAN HARI—SEN, Dr. S. K.—SEN, SURYA KUMAR—SEN GUPTA, Dr. NARES CHANDRA.

I may add that these students of culture history are, with one or two exceptions, Indian professors connected with the University and its affiliated colleges.

Besides this school of Indianists we have in Bengal a rising historical school or schools dealing with the chronological framework of the history of Bengal and in some cases, of Indian history as a whole. We have also researches into the history of Bengali literature, the philology of the Bengali tongue, and the history of Indian iconography and architecture, all these being focussed in three or four different organisations in different parts of Bengal, Eastern, Western, and Northern—such as the Calcutta and the Dacca Sahitya Parishads and the Varendra Research Society. Most of these investigators are either connected with the University and its affiliated institutions, or own the University as their *Alma Mater*.

Turning now to science subjects (including mathematics, pure and mixed, for our present purpose) I would point to several promising investigators into problems of mathematical physics and pure mathematics, connected with either the post-graduate department of the University or with the University College of Science, and to a larger number of rising Bengali chemists, mostly pupils of Professor P. C. Ray. The Mathematical Society has been very active in creating a centre of mathematical studies and research in and about the Calcutta University. Its bulletins contain original papers.

SEN, PRAN HARI.

For the encouragement and stimulation of independent investigation into Indian and other problems amongst the alumni of the University I would recommend the foundation by Government and private individuals of special research and other scholarships, prizes, and rewards consistently with the resources of the University, and by way of incentives. There is not the least doubt that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity among students, but this curiosity has to be created, fostered, developed, and encouraged in a direct and tangible manner by Government, private individuals, and the University. The existing system, no doubt, does, and is doing, something towards creating and developing such curiosity, but very much more remains to be done.

SEN, Dr. S. K.

The chief root of the work must be the existence of a widespread and genuine intellectual curiosity among students. The existing system does nothing of the kind.

SEN, SURYA KUMAR.

Some post-graduate scholarships should be founded for the encouragement and stimulation of independent investigation into Indian and other problems among the alumni of the University. The University of Calcutta has lately succeeded a good deal in creating and developing a widespread and genuine intellectual curiosity in this direction.

SEN GUPTA, Dr. NARES CHANDRA.

(*a*) The foundation of a large number of research scholarships in all subjects. These scholarships have amply justified themselves since their foundation.

(*b*) The institution of a class of teaching scholars, who should have ample time for researches.

(*c*) Making scholarships and teaching a decent paying profession which it is not now.

(*d*) The removal, as far as possible, of racial bars to the recognition of merit as scholars by appointment to the highest educational appointments.

SEN GUPTA, Dr. NARES CHANDRA—*contd.*—Serampore College, Serampore—SHARP, The Hon'ble Mr. H.

There is a sufficiently widespread and genuine intellectual curiosity among Indian students. In the nature of things it is not a thing which you can expect in every student, but I think there are quite a good many who have the necessary curiosity. The system of education now in vogue does not offer sufficient openings for the satisfaction and guidance of that curiosity. There is practically no opportunity for proper training in research work under expert guidance so that every young man who wants to follow a particular line of investigation is left very much to his own resources.

There are two other factors which help to stunt the development of the spirit of research. There is a remarkable want of openings for a career of scholarship. The man who has to earn his livelihood by Government service or a professional career cannot waste much time in original research.

The other factor is the absence of a really critical society of savants for estimating the value of researches and stimulating research work. Unthinking laudation of work of small value, and the want of recognition of work of real merit, have alike stunted the growth of a spirit of research. This deficiency can only be cured by time. The development of such learned societies will come with the increase in the number of research workers and the establishment of powerful academies for research. Many such societies have made small beginnings. I should suggest the formation of similar academies for special subjects.

Serampore College, Serampore.

We consider that the existing external examination system in vogue in most of the university arrangements lamentably fails to create and develope genuine intellectual curiosity in the minds of students. The remedy we suggest is a reorganisation of the university system throughout, on principles already recognised as sound in the initiation of the post-graduate scheme. These changes should begin in the schools and be consistently applied throughout all the stages of the university course. There is a vast field for the independent investigation by Indian graduates of Indian problems of the most varied character, literary, philological, religious, economic, historical, ethnological, scientific—a field to a very large extent closed to western workers.

SHARP, The Hon'ble Mr. H.

It is early to talk of independent investigation. Much spadework has yet to be done. The existence of a widespread and genuine intellectual curiosity is a potent factor in such work; for then mind reacts on mind and a stimulating atmosphere is created. The trouble is that the existing system does not develope a widespread curiosity. The reasons for this are obvious; the examination system is deadening; large numbers of students and small staffs prevent personal intercourse between teacher and taught; tutorial systems are weak or non-existent; much of the college student's time is taken up with the laborious remedying of the defects of his school education. Moreover, early employment is in demand; and the degree or the mastership is regarded as naturally leading to it. The system does not, however, prevent the development of the investigating faculty in individual students, though these are few and the development generally comes late.

The first step to be taken is to encourage this faculty from the earliest stage. This entails improvement of the school system, larger staffs in the colleges capable of giving personal instruction, tutorial methods, and *seminars*. Only by such means can the truly intellectual frame of mind be developed at a comparatively early stage among large numbers of students. If it is not developed early it will never be developed at all. For it is inevitable that a majority of students will seek employment early. Rather than see a few picked students proceeding to original research after passing the mastership I should prefer that the majority of those who attain the degree and then pass out to a profession should do so with a stimulus towards study and wholesome reading. It is complained that our graduates seldom look at a book of general interest after leaving college. I think the complaint is exaggerated. But

SHARP, The Hon'ble Mr. H.—*contd.*—SHASTRI, PASHUPATINATH—SINHA, ANANDAKRISHNA—SINHA, KUMAR MANINDRA CHANDRA.

instances of any special intellectual pursuit among the educated classes, though by no means wholly absent, are rare. The chief thing is to produce among the whole body of students a lasting interest in the real pleasures which can be reaped in leisure hours from literature, the pursuit of science, etc.

When this is accomplished the result will be of the utmost value in itself, and will also stimulate independent research among those who remain on at the University and also among professional men. The local university will afford a suitable place of study for the former class. Fellowships will be required in India. A certain number has already been founded, and this form of benefaction is one which appeals in India. The existence of such fellows will add to the intellectual amenities of the University.

SHASTRI, PASHUPATINATH.

Genuine intellectual curiosity is not found among the average run of students because their chief object is to secure a pass. The University cannot develope such curiosity unless Government and the people encourage it. If Government create openings of various sorts, and if the people cease to be fond of easy courses of life, and if students feel sure that there will be spheres of life other than clerkship and the legal profession, they will work with greater enthusiasm, and genuine intellectual curiosity will not be there wanting.

SINHA, ANANDAKRISHNA.

Individual curiosity was never wanting in Bengal and we get a good many proofs of this in the shape of many researches conducted by individual ability and guidance. But the thing could not have been properly organised on a large scale for want of proper organisation and financial help.

Till late, the system of university education, with the stereotyped work and examinations, did not afford any facility to students to devote their attention to original work. They were too busy (and still are now) with the heavy list of text-books and examination to get any time for higher thinking. Teachers were often overworked, getting very little time to devote to independent investigation. The result was that, except in a very few cases, students of literature and science were made to pass their life with the teaching work only. There was no society, no proper organisation. The recent formation of the post-graduate classes and the Science College is an attempt at organisation. The professors there get sufficient time for original work. But they (especially in the Science College) have gone to the other extreme of not doing teaching work at all. Steps should be taken to organise in a better way to afford facilities to students.

Secondly, the economic condition of the middle class, from which the largest number of alumni is recruited stood in the way of independent investigation. The tightening grip of poverty left in them no chance of breathing the calm air of research work. If these eager students of the middle class who were anxious to do independent work had been somehow placed above daily want (by the grant of scholarships, honoraria, etc.) original work would have progressed more in Bengal. To do these things money is necessary. The University is too poor to meet this ever-increasing demand and, unless Government and the public come forward, as they have done in the case of the Bose Institute, no perceptible progress is possible.

SINHA, KUMAR MANINDRA CHANDRA.

Indian students of brilliance should study their country's problems. There is too much of the Westernising of Indian education, causing people to neglect their own country and to look to the West for all perfection.

SINHA, PANCHANAN—SIRCAR, The Hon'ble Sir NILRATAN—SÜDMERSEN, F. W.—SUHRAWARDY, HASSAN—THOMSON, Dr. DAVID.

SINHA, PANCHANAN.

The appointment of good teachers is the first requisite of success in this direction. To attract the best intellects of the country to educational work the emoluments of the service must be greatly increased; larger freedom must be allowed to teachers, greater opportunities of congenial association and work must be afforded to them; and the fixity of their tenure of service must be assured.

The existence of a widespread and genuine curiosity among students is, undoubtedly necessary for independent investigation, but facilities in the shape of scholarships and endowments should also be provided.

The existing system under which teachers are looked upon as the 'reject' of all the other professions, and teaching to many is only a temporary expedient for higher things can never create nor develope this curiosity.

SIRCAR, The Hon'ble Sir NILRATAN.

Prizes, scholarships, medals, etc., should be founded for this purpose. Further, the results should be published under the auspices of the University.

As regards the higher intellectural curiosity (which is the prime-mover of research work) the existing system has created and developed it in many cases, and is developing it increasingly, with larger provisions for facilities for research.

SÜDMERSEN, F. W.

The present system of university education does not produce widespread and intellectual curiosity. The possession of a degree is the sole object of at least 95 per cent of the students of our colleges. Independent thought and judgment find but little place. The examination standard marks the success or failure of every institution and, from this standpoint, the main judgment of a man's work is formed. The boiling down of text-books, and the dictating of concise notes, make a popular 'professor'. And, if the teacher is unwilling, the bazar 'key' writer is more obliging, and success in the examination follows almost as an inevitable necessity.

Even the honours examination and the post-graduate courses afford no evidence of intellectual superiority. A greater receptive and retentive capacity is all that is usually in evidence.

SUHRAWARDY, HASSAN.

The existing system does not tend to develope intellectual curiosity and thirst for knowledge for the sake of knowledge. University unions and societies, composed of teachers and students, and the establishment of research scholarships, will give an impetus to independent investigation.

THOMSON, Dr. DAVID.

The first step towards the encouragement and stimulation of independent investigation among the alumni of the University is the provision of adequate facilities for research in existing colleges. The two main requisites are libraries and leisure. Another is such a degree of affiliation as will make it possible to retain one's own best students for a year or two of post-graduate study. This means M.A. affiliation in arts and M.Sc. affiliation in science. Without libraries and without leisure it is hardly possible for members of a mofussil college staff to do much worth while in the way of research. If there

THOMSON, Dr. DAVID—*contd.*—TIPPLE, E. F.

is little or no independent investigation by the staff students can hardly be expected to be seriously infected with the *caccethes scientiae*, especially when they are compelled to migrate to Calcutta or Dacca the moment they have obtained their B.A. or B.Sc. degree.

However, in the Cotton College at least, there is a marked improvement in this respect. The library, though still deficient, has now reached the state when research work is possible. Given a further extension of affiliation in science and arts, and a continuation of liberal library and equipment grants, quite a lot might be done even under existing conditions when our student raw material is educationally so defective.

A scientific journal (or journals), especially for India, on the lines of the *Indian Medical Journal*, in which research work done in India might be published and Indian problems discussed would do more than almost anything else to break down the feeling of isolation and helplessness, which tends to deaden effort, in our mofussil colleges at least, and would serve to guide and co-ordinate Indian research along useful and healthy lines. At present, Indian research is published mainly in the journals of Europe and America. As very few mofussil colleges can afford to subscribe for more than one or two journals in each subject the result is that a good deal of the research work of one's Indian colleagues tends to escape notice, or is seen only in scrappy summary.

TIPPLE, E. F.

"The existence of a widespread and genuine intellectual curiosity among students" is, undoubtedly, a requisite for the encouragement and stimulation of independent investigation among the alumni of any university.

It is, however, the function of secondary schools to lay the foundation of this curiosity, rather than that of the University, whose special function would seem to be the development of sound powers of criticism for the direction of the work of investigation in fields where the curiosity already exists.

It is for this reason that the co-ordination and proper organisation of the courses in secondary schools appears to be a matter of such fundamental importance in the educational life of any country. The need for this organisation is indicated in the large amount of writing on educational values and educational aims, particularly with reference to the arrangement of parallel courses of study in the secondary stage. Inattention to such matters has, in the past, been productive of gaps in the educational system, and to a corresponding waste of valuable time. Such gaps exist between the primary and secondary stages, and between the secondary and higher, or university, stages; they can only be bridged by a more careful organisation of the courses of study appropriate to each particular grade.

The process of education might, perhaps, briefly be described as a combination of three subsidiary processes:—

(*a*) The training of the powers of memory, not its mere storing with an accumulation of facts, but the development of the powers of memory for profitable subsequent use.

(*b*) The development of interest or of incentives to activity.

(*c*) The development of the reasoning faculties.

During the whole period of education, or of intellectual life, these three processes are necessarily in action, but at different stages they appear to come successively into special prominence.

For these reasons the witness believes that the creation of an atmosphere of intellectual curiosity is more especially the work of secondary schools and that, while it is, possibly, the function of the University to strengthen and intensify such curiosity, it must have been largely developed at an earlier stage if the University is to utilise it to any profit. The real test of the value of a university course must, in the witness' opinion, lie in its power to develope the critical faculties of students.

VACHASPATI, SITI KANTHA—VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA—VREDENBURG, E. (in consultation with COTTER, G. DE P.)—WAHEED, Shams-ul-Ulama ABU NASR—WALKER, Dr. GILBERT T.

VACHASPATI, SITI KANTHA.

I recommend the following steps:—

(*a*) Provision of maintenance of meritorious students by scholarships and State help.
(*b*) Proper guidance.
(*c*) Sufficient remuneration worth the trouble after the research work is complete.
(*d*) State recognition of exceptionally good work.
(*e*) Organisation of excursions to historic places of interest.

Yes; the chief root is as described.
No; the existing system does not create and develop such curiosity.

VIDYABHUSAN, RAJENDRANATH, AND VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

Organisation of excursions to places of interest.
Yes; they are the chief roots.
No; the existing system is deficient in these respects.

VREDENBURG, E. (in consultation with COTTER, G. DE P.)

Outside of Government official circles the wealthier classes in India, both Indian and European, do not show as much interest in intellectual pursuits as could be desired. I do not very well see what a government or a university can do directly to remedy such a state of things otherwise than by recognition and encouragement of culture. The growth of such institutions as the Indian Science Congress, the Indian Association for the Cultivation of Science, the Indian Society of Oriental Art is a step in the right direction. An enormous amount of good, both by deed and by example, could be accomplished by the wealthier classes of Indians if they could be thoroughly awakened to the importance of intellectual culture. Much has been done already, but a great deal more could be done.

WAHEED, Shams-ul-Ulama ABU NASR.

For the encouragement and stimulation of independent investigation into Indian and other problems I would suggest:—

(*a*) The introduction of the best method of teaching and tuition, and the best mode of college life.
(*b*) Personal guidance and inspiring company of teachers of first-rate ability engaged in actual research work.
(*c*) Creation of a congenial atmosphere and favourable environment, as a result of concentration of culture and intellectual effort and residence in inspiring company, within easy reach of well-equipped libraries and laboratories and within the University area far from the distractions of the town.
(*d*) Periodical excursions in company with such teachers to visit places of interest or to study problems locally.

WALKER, Dr. GILBERT T.

There are exceptions; but, in general, I think the Indian university student is not trained well enough to do original work. It is very hard to say what he would do if he really had the same advantages as Europeans in their school, as well as in their university, life. But I see no reason for thinking that if they had these advan-

WALKER, Dr. GILBERT T.—*contd.*—WATHEN, G. A.—WEBB, The Hon'ble Mr. C. M.—WILLIAMS, Rev. GARFIELD—WORDSWORTH, The Hon'ble Mr. W. C.

tages there would be any lack of desire to advance knowledge among them. Here and there there is, undoubtedly, very great natural ability and, hence, I think the failure of India to produce the research work that it should is mainly due to the unsuitability of the teaching at school as well as in the University.

I don't think lack of curiosity is vital; if students know that their success turns on doing research work—as it does in a good English university—they will do it if they can.

WATHEN, G. A.

There is no such thing in the Punjab University as a member of the college staff whose *chief* business it is to investigate. A man may show in his M.A. course scholarship and originality and, as a result, may obtain a lectureship in an affiliated college. Once appointed he will be so hard pressed with teaching and other college duties that he will have no leisure and soon lose taste for independent investigation. Once again the remedy is a matter of money. If the colleges could afford to employ twice as many lecturers as they do, scholarships might grow up. At present it cannot be said to exist. I recommend that fellowships in Government colleges be given definitely for five years only. These men would, at the end of five years, be absorbed into the staff of either their own, or of other, colleges. About R150 would secure promising material; their teaching duties would be confined to giving assistance to the regular lecturers in case of sickness or leave.

WEBB, The Hon'ble Mr. C. M.

Intellectual curiosity among students is, undoubtedly, one of the chief roots of independent investigation into intellectual problems. But it is not the only root. The knowledge that practical problems are awaiting the extension of pure knowledge is a great stimulus to investigation. I consider that the close association of the University with industrial, scientific, and technological institutions and societies would assist in determining the most urgent problems awaiting investigation and solution, and in directing intellectual curiosity into the most advantageous channels. Intellectual curiosity is frequently latent, and requires some strong incentive to stimulate it into activity.

WILLIAMS, Rev. GARFIELD.

The answer to this question is that to this end there must be a complete reconstruction of university education with a view to giving such teaching as will create "a genuine intellectual curiosity among students". I agree that such an intellectual curiosity is the primary requisite to independent investigation, and I hold that the present system, so far from creating and developing such a curiosity, simply makes it impossible.

WORDSWORTH, The Hon'ble Mr. W. C.

I do hold that the chief root of such work must be the existence of a widespread and genuine intellectual curiosity and, I would add, of a belief in the value of such work. The existing system neither creates nor developes this curiosity though, occasionally, it is developed, despite the system, by the influence of a commanding personality. Poor school education, poor knowledge of language, and the burden of curricula stand in the way; the student is oppressed by overheavy syllabuses, and feels that his examination success (and so his probability of success in life) depends on the amount of knowledge

he can reproduce on demand. So notes become more helpful than books, books than independent investigation or thought: by the time he has taken his degree natural curiosity has given way to weariness and disgust. Apart from this circumstances are adverse. The economi pressure is great; there is practically no class that can afford the leisure and expense of independent study after college years; entry into the services or professions cannot be unduly deferred; and there is no confidence that the man who so devotes himself to scientific or other investigation will at any time find a demand for his qualities and equipment in the market. In other countries there is sufficient demand to stimulate such work. Here there is no tradition in its favour, and the prospect of employment even in educational work scarcely makes it worth while.

In my view no steps to encourage this are likely to be successful until there is a general change of opinion with regard to the purpose of education and of examinations. The change must come primarily from a remodelling of rules, curricula, etc., of examinations. The experiment has been tried of creating research scholarships to promote research, but results have seldom been encouraging. With few exceptions we have not the men who can stimulate and train; consequently, little work of value appears to have been done.

ZACHARIAH, K.

I do not consider there is any appreciable amount of intellectual curiosity generated by the present system. (For a few suggestions see my answer to question 5.)

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